



Culinary Techniques

FOR HEALTHY SCHOOL MEALS

Participant's Workbook



National Food Service Management Institute
The University of Mississippi



Participant's Workbook

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National Food Service Management Institute
The University of Mississippi

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**National Food Service Management Institute
The University of Mississippi**

Building the Future Through Child Nutrition

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The purpose of the National Food Service Management Institute is to improve the operation of child nutrition programs through research, education and training, and information dissemination.

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The vision of the National Food Service Management Institute is to be the leader in providing education, research, and resources to promote excellence in child nutrition programs.

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Participant's Workbook

Introduction to Preparing Healthy School Meals

Time: 1 hour



National Food Service Management Institute
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Introduction to Preparing Healthy School Meals

Important Terms

Culinary

Relating to the kitchen or cooking. An example of use is to describe food preparation skills as culinary skills.

Culinary Technique

A step-by-step food preparation method.

School Nutrition Assistant

Throughout this series of lessons, this title is used to refer to all employees in the school kitchen with the exception of the manager. Some school districts use the term cooks, technicians, or school nutrition employees.

Just-In-Time Preparation

Preparing a menu item in small enough amounts so that it will be at its peak of quality when placed on the serving line. This preparation schedule avoids holding any food for a long time. Other terms that mean the same thing are *batch cooking* and *cooking to the line*.

Manager

Throughout this series of lessons, this title is used to refer to the person who is responsible for the day-to-day operation of the school nutrition program at the school site.

***Mise en Place* (meez-un-plahss)**

A French term used by chefs and other culinary professionals to describe all the different things that have to be done to get ready up to the point of cooking. Translated, it means *put in place*. It includes all the *get ready steps* in food preparation such as using the recipe to assemble the equipment needed and getting ingredients ready to combine.

Nutrients

The chemical substances found in food that nourish the body. There are six classes of nutrients: proteins, carbohydrates, fats, water, minerals, and vitamins.

School Nutrition Team

The school nutrition team includes the school site manager and all the school nutrition assistants.



Introduction to Preparing Healthy School Meals

Introduction to Preparing Healthy School Meals

Welcome to the introductory lesson for *Culinary Techniques for Healthy School Meals*. This is the first of a series of lessons designed to help school nutrition teams prepare healthier school meals that appeal to the taste of today's students.

School menus should be planned to be consistent with the principles of the *Dietary Guidelines for Americans*. Well-planned menus and carefully purchased food items bring the right foods in the back door. However, what happens to food from the back door of the kitchen to the serving line is the responsibility of the school nutrition team.

The school nutrition manager and assistants are the school nutrition team.

The team's job is to prepare and serve nutritious, quality meals at school. Team members hold the key to healthy school meals. This series of lessons will help every team member gain more knowledge about food production and learn new culinary skills. As team members learn more about nutrition, food production, and culinary techniques, every school nutrition program will improve.

What changes have already been made in your school nutrition program to serve meals that are consistent with the *Dietary Guidelines for Americans*?

What changes have already been made in your school nutrition program to continue to improve the quality of the foods that are served?

Five-Step Process in Preparing Quality Foods

1. Plan food production for just-in-time service.

It is the responsibility of the cook to follow the planned production schedule. Since most foods taste their best immediately after they are prepared, the production schedule times food preparation so that foods are prepared as close to the time of service as possible. For many foods, this means planning the final steps for production to be done during the service period so food is cooked and served continuously. Many different menu items – from broccoli, to toasted cheese sandwiches, to spaghetti noodles – are at their peak of quality when cooked just-in-time for service.

Just-in-time is the term used in all the lessons to mean cooking in small batches as needed, during the service period. Some school nutrition personnel use the terms *cooking to the line* or *batch cooking* to mean the same thing. In other words, foods are cooked as they are needed on the serving line.

Introduction to Preparing Healthy School Meals, *continued*

2. Review the Quality Score Card and the recipe.

School nutrition professionals have quality standards for various menu items just like professionals in other fields. The quality standards for foods can be grouped into those that tell about

- Appearance (how the food should look when it is prepared according to a recipe),
- Texture and Consistency (how the food should feel in the mouth and how easy it is to cut),
- Flavor (how the food tastes), and
- Service Temperature (the ideal temperature for serving the food).

The quality standards for a food are like a target. They are the goal of food preparation. In these lessons, the quality standards have been organized as Quality Score Cards for groups of foods. Before beginning food preparation, it is important to review the Quality Score Card to know how the finished product should look and taste.

The second thing that should be reviewed is the recipe. Every profession has rules and procedures to follow. In the foodservice profession, the rules and procedures necessary for quality food production are described in recipes. The recipes used for these lessons are from the U.S. Department of Agriculture, Food and Nutrition Service and can be found at www.nfsmi.org. The cook should read the complete recipe before moving to the next step.

3. Organize equipment and ingredients.

A well-organized cook saves time and energy by assembling all ingredients and equipment

before starting food preparation. This process is called *mise en place* or to put in place. Use the recipe or directions to find out what is needed. Then get together the equipment and ingredients. Stay organized during food production by keeping things in order and cleaning as needed.

Professional chefs know that *mise en place* means more than just assembling ingredients and utensils. They explain that this term also means a state of mind. It means thinking about all the things that must be done during food preparation and thinking about how to handle situations that could arise during food production. To help school nutrition professionals move to this state of mind, the lessons include information about culinary techniques and why they work the way they do. Knowing why helps a professional cook prevent problems during food production and solve them when they do happen.

4. Use the right culinary technique.

A professional uses the right culinary technique for the food that is to be prepared. Each of the lessons includes video demonstrations of one or more culinary techniques. The demonstration shows a step-by-step way of preparing the food to meet quality standards. To be sure to understand each step of a new culinary technique, it may be desirable to watch the video lesson more than one time.

A recipe includes a description of the right culinary technique to use for that food. By learning the basic culinary technique and then following the direction on a recipe, the results will be a quality product.

Introduction to Preparing Healthy School Meals, continued

5. Deliver a quality product.

A professional cook evaluates each product using the Quality Score Card before it is placed on the serving line. By stepping back and taking an objective look at each product after it is prepared, culinary skills can be continually improved. This is the way a professional chef becomes a master of food preparation skills. Sometimes it is helpful to have another school nutrition team member use the Quality Score Card to evaluate a product. This may be a more objective evaluation of the food. Remember, the food on the serving line represents the efforts of the whole school nutrition team, so everyone has a stake in preparing quality food.

The Quality Score Card is a measure of success and it is a way to spot food production problems that need to be corrected. When a food does not meet quality standards, it should not be served. Several of the lessons include special information that will help determine why a food did not meet standards and how to avoid the problem the next time.

Assessing the quality of all food products should be done before every service. Each lesson will include a reminder to use this five-step process.

Culinary Techniques for Healthy School

Meals is a series of lessons that can be used by the school nutrition team as a group or by individuals on the team.

Video clips are part of each lesson. The video clips demonstrate culinary techniques used by schools. After each lesson, there will be time to practice using what has been discussed and demonstrated. Each lesson includes a Culinary Practice that is a planned way for school nutrition assistants to practice using the new culinary techniques with the manager serving as their coach. The culinary practice is really a team activity because school nutrition assistants will work together during food production and will also work together to evaluate the food product.

This series of lessons can have a positive effect on each person on the school nutrition team. Whether the school nutrition assistant is new to school nutrition or an experienced performer, continuing to learn and grow in the job is part of the professional commitment.

To continue to improve school nutrition programs every person must be willing to learn new ways to produce quality foods, and be willing to evaluate their food products according to accepted standards.

This series of lessons will give each person the information needed to produce nutritious, quality meals, but the commitment to use the information must come from each team member.



Introduction to Preparing Healthy School Meals

Quality Score Card for Meat, Poultry, and Fish

Date: _____ Name of Menu Item: _____

Proudly Prepared by: _____

Quality Scored by: _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **N/A** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

QUALITY STANDARD	YES	NO	N/A	COMMENTS
APPEARANCE				
Product appears moist.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product has been trimmed of any excess visible fat.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product has been drained and no cooking fat is visible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Color is a rich brown, characteristic of the meat, poultry, or fish item.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Browning is even and correct for the product (not too brown).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Portions are uniform in size.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TEXTURE OR CONSISTENCY				
Product is tender and easily chewed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product can be pierced with a fork with minimum pressure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product is firm and moist.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FLAVOR AND SEASONING				
Product is juicy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Flavor is fresh and appropriate for the product (no refrigerator taste or freezer burn).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Seasonings enhance but do not overpower the taste (no greasy taste, or too much salt).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SERVICE TEMPERATURE				
Meat products served hot - 150 °F–180 °F or above	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Poultry products served hot - 165 °F–180 °F or above	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Meat or poultry products served cold – 40 °F or below	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	



Introduction to Preparing Healthy School Meals

Baked Cajun Fish

Meat/Meat Alternate

Main Dishes

D-46

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Paprika		2 tsp	1 tbsp	1 tsp	1. Mix paprika, granulated garlic, onion salt, red pepper, black or white pepper, oregano, and thyme in a small bowl. Reserve for step 3.
Granulated garlic		2 tsp	1 Tbsp	1 tsp	
Onion salt		2 tsp	1 Tbsp	1 tsp	
Red pepper		$\frac{3}{4}$ tsp	1 $\frac{1}{2}$ tsp		
Ground black or white pepper		$\frac{3}{4}$ tsp	1 $\frac{1}{2}$ tsp		
Dried oregano		1 tsp	2 tsp		
Dried thyme		1 tsp	2 tsp		
Frozen fish portions (3 oz each)	9 lb 7 oz	50 each	18 lb 14 oz	100 each	2. Place 25 fish portions into each ungreased steamtable pan (12" x 20" x 2 $\frac{1}{2}$ "). For 50 servings, use 2 pans. For 100 servings, use 4 pans.
Lemon juice		$\frac{1}{2}$ cup		1 cup	3. Sprinkle $\frac{1}{4}$ cup of lemon juice and 1 Tbsp 2 tsp of seasoning mix over the top of each pan.
Margarine or butter, melted	6 oz	$\frac{3}{4}$ cup	12 oz	1 $\frac{1}{2}$ cups	4. Drizzle $\frac{3}{4}$ cup of melted margarine over the seasonings.
					5. Bake: Conventional oven: 350° F for 20 minutes Convection oven: 350° F for 15 minutes Fish should flake easily with a fork. CCP: Heat to 145° F or higher for at least 15 seconds.
					6. CCP: Hold for hot service at 135° F or higher.

SERVING:

1 portion provides 2 oz equivalent meat/meat alternate.

YIELD:

50 Servings: about 7 lb 14 oz

VOLUME:

50 Servings: 2 steamtable pans**100 Servings:** about 15 lb 12 oz**100 Servings:** 4 steamtable pans

Edited 2004

Baked Cajun Fish

Meat/Meat Alternate

Main Dishes

D-46

Special Tips:

- 1) For best results, batch-cook fish throughout the meal.
 - 2) 3 oz boneless, skinless chicken breasts or thighs may be substituted for fish.
- CCP: Bake chicken to 165° F or higher for at least 15 seconds.

Nutrients Per Serving			
Calories	128	Saturated Fat	1.75 g
Protein	12.58 g	Cholesterol	43 mg
Carbohydrate	0.43 g	Vitamin A	220 IU
Total Fat	8.12 g	Vitamin C	1.3 mg
		Iron	0.63 mg
		Calcium	9 mg
		Sodium	145 mg
		Dietary Fiber	0.1 g



Participant's Workbook

Preparing Fruits

Time: 1 hour



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Important Terms

Culinary

Relating to the kitchen or cooking. An example of use is to describe food preparation skills as culinary skills.

Culinary Technique

A step-by-step food preparation method. The culinary techniques described in this lesson include preparing fresh fruits and baking fruits.

Ethylene gas

A naturally occurring gas produced when some fruits and vegetables begin to ripen.

Just-In-Time Preparation

Preparing a menu item in small enough amounts that it will be at its peak of quality when placed on the service line. This preparation schedule avoids holding any food for a long time. Other terms that mean the same thing are *batch cooking* and *cooking to the line*.

Mise en Place (meez-un-plahss)

A French term used by chefs and other culinary professionals to describe all the different things that have to be done to get ready up to the point of cooking. Translated, it means *put in place*. It includes all the *get ready steps* in food preparation such as using the recipe to assemble the equipment needed and getting ingredients ready to combine.

Nutrients

The chemical substances found in food that nourish the body. There are six classes of nutrients: proteins, carbohydrates, fats, water, minerals, and vitamins.

Seasonal Produce

Fruits and vegetables that are at their peak of production at a particular time of the year. Typically this produce is more flavorful and less expensive. Seasonality of produce will depend on region.

Keep Fresh Produce Flavorful

When produce arrives at the back door, it should be in excellent condition. From that point on, the quality is controlled by the school nutrition assistants in the school kitchen. The quality of fresh produce, both fruits and vegetables is affected by:

Temperature – For every 10 °F increase in temperature beyond the recommended temperature, a produce item can lose half its shelf life. Store produce at the right temperature for the variety.

Product Rotation – When produce is delivered, the date should be written on the box. Then, the oldest produce should be used first.

Storage Conditions – Different fruits and vegetables should be stored according to recommendations from produce experts.

Proper Handling During

Preparation – Fresh produce, both fruits and vegetables, benefit from being prepared just in time for service.

Some fresh fruits must be ripe before they are refrigerated or served. Some fruits ripen at room temperature. Once ripened, the fruits should be refrigerated. Fruits that ripen at room temperature:

- Avocados
- Kiwifruit
- Nectarines
- Peaches
- Pears
- Plums

Never refrigerate bananas.

Ethylene gas is naturally produced from some fruits and vegetables. Ethylene gas will cause certain fruits and vegetables to ripen and deteriorate quickly. Ethylene producing fruits and vegetables should be kept separate from ethylene sensitive produce.

Ethylene Producing Produce

Apples*
 Apricots*
 Asparagus*
 Avocado*
 Bananas*
 Cantaloupes
 Cherimoya*
 Figs
 Guava
 Honeydew melon
 Kiwifruit
 Mangos*
 Nectarines*
 Papayas*
 Passion fruit*
 Peaches*
 Pears*
 Persimmons
 Plaintains
 Plums
 Prunes
 Tomatoes*

*Ethylene producing *and* ethylene sensitive produce

Ethylene Sensitive Produce

Broccoli
 Brussels sprouts
 Cabbage
 Carrots
 Cauliflower
 Cucumbers
 Eggplant
 Grapes
 Green beans
 Leafy greens
 Lettuce
 Okra
 Peas
 Peppers
 Spinach
 Squash
 Sweet potatoes
 Watermelon

Using, Handling, and Storing Fruits

Form of Fruit Available	Where to Use	How to Handle	How to Store
Fresh	Serve fresh to students in salads.	Serve in age-appropriate pieces.	Refrigerate or dry storage depending on fruit.
Frozen	Use in baked products. Use in fruit sauces. Serve as fruit cups while partially frozen.	Thaw frozen fruits in the refrigerator and use them immediately when thawed or still icy.	Keep frozen until ready to use.
Canned	Serve chilled. Use in fruit salads. Use in fruit sauces.	Chill canned fruits before they are added to a cold fruit dish.	Store at 70 °F or less. Date cases or cans when they are received and rotate.
Dried	Use in hot cereals. Use in granola mix. Use in fruit bars and cookies.	Chop into bite-size peices, if necessary.	Store dried fruits in airtight containers to maintain their flavor.
Juice	Serve at breakfast or lunch. Use as a cooking medium. Use as the liquid in congealed salads.	Thaw frozen juice in the refrigerator and use immediately when thawed.	Frozen juice should be kept frozen until ready to use. Canned juices should be stored at 70 °F. Fresh juice should be kept refrigerated.



Flavor Enhancement Chart

Herbs, spices, fruit juices, or citrus zest or peel can enhance the flavors of fruits and fruit-based dishes.

Herbs commonly used with fruits

Name	Form	Taste	Uses
Anise seeds	Seeds	Sweet licorice flavor	Cookies, cakes, fruit salads, sauces
Cilantro	Fresh, dried	Sweet aroma, mildly peppery	Fruit salsas
Fennel seeds	Whole	Flavor is similar to anise, pleasant sweet licorice flavor	Baked apple dishes
Mint	Fresh, dried	Strong and sweet with a cool aftertaste	Fruit salads, sauces, frozen desserts

Spices commonly used with fruits

Name	Form	Taste	Uses
Allspice	Whole berries, ground	The aroma suggests a blend of cloves, cinnamon, and nutmeg; sweet flavor	Fruit cakes, pies, sauces
Cardamom	Whole, ground	Mild, pleasant, sweet ginger-like flavor	Baked products, fruit salads, particularly good with blueberries
Cinnamon	Whole sticks, ground	Warm, spicy, sweet flavor	Cakes, pies, fruit sauces, fruit salads
Chili powder blend (Pico de Gallo)	Ground	Blend of chili peppers	Fruit salad
Cloves	Whole, ground	Hot, spicy, sweet, penetrating flavor	Baked fruit desserts
Ginger	Fresh, whole, ground	Aromatic, sweet, spice, penetrating flavor	Fruit salads, cookies, baked fruit desserts
Nutmeg	Whole, ground	Spicy, pleasant flavor	Baked fruit desserts, fruit sauces



Quality Score Card for Fresh Fruits and Fruit Menu Items

Date: _____ Name of Menu Item: _____

Proudly Prepared by: _____

Quality Scored by: _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **N/A** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

QUALITY STANDARD	YES	NO	N/A	COMMENTS
APPEARANCE				
Color is typical of the ripe fruit(s).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Color is fresh (not marred by discoloration from oxidation).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Fruit pieces are similar in size.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Fruit pieces are intact.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Garnish is edible and appropriate for the dish.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TEXTURE OR CONSISTENCY				
Fruit is at the peak of ripeness.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
All pieces of the fruit have the same texture.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FLAVOR AND SEASONING				
Fruits have a pleasing, slightly sweet, ripe flavor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
If seasonings have been used, they are detectable but not overpowering.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Seasonings enhance the fruit flavor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
If a dressing or sauce is used, it complements the fruit (mild, not overpowering).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SERVICE TEMPERATURE				
Chilled: 34 °–38 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Quality Score Card for Baked Fruit and Fruit Desserts

Date: _____ Name of Menu Item: _____

Proudly Prepared by: _____

Quality Scored by: _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **N/A** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

QUALITY STANDARD	YES	NO	N/A	COMMENTS
APPEARANCE				
Fruit pieces are similar in size.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Fruit pieces are intact.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Garnish is edible and appropriate for the dish.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Pastry or topping has a golden brown color.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Pastry has a blistery surface.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TEXTURE OR CONSISTENCY				
All pieces of the fruit have the same texture.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Pastry has a flaky or mealy texture.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Pastry cuts easily.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FLAVOR AND SEASONING				
Fruits have a pleasing, slightly sweet, ripe flavor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
If seasonings have been used, they are detectable but not overpowering.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Seasonings enhance the fruit flavor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Pastry has a pleasant, bland flavor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SERVICE TEMPERATURE				
Pastry Dessert: 60 °–70 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Hot Baked Fruit: 160 °–180 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Culinary Practice Score Card for Fruits

Name(s): _____

Purpose: The purpose of the activity is to practice Preparing Fruits.

Culinary Technique: Identify the culinary technique that you will use. Refer to the previous pages for a description of each technique.

Name of the Recipe: _____

Date for Production: _____

Directions: The manager and school nutrition assistant(s) will select a recipe for fruit that includes one of the culinary techniques described in this lesson. Check **YES** or **NO** when each step is completed. (This practice activity may be completed individually or with a partner. The manager will make this assignment at the end of the lesson.)

	YES	NO
Plan food production for just-in-time service.		
Did you plan food production for just-in-time service?	<input type="radio"/>	<input type="radio"/>
Review the Quality Score Card and the recipe.		
Did you review the recipe so you are familiar with the ingredients, equipment, and directions?	<input type="radio"/>	<input type="radio"/>
Did you review the Quality Score Card so you will know how the finished product should look and taste?	<input type="radio"/>	<input type="radio"/>
Organize equipment and ingredients.		
Did you assemble all the equipment needed?	<input type="radio"/>	<input type="radio"/>
Did you assemble all of the ingredients needed?	<input type="radio"/>	<input type="radio"/>
Use the right culinary technique.		
Did you use the culinary technique correctly?	<input type="radio"/>	<input type="radio"/>
Deliver a quality product.		
Did you use the Quality Score Card to evaluate the product?	<input type="radio"/>	<input type="radio"/>
Did you review the product with the manager?	<input type="radio"/>	<input type="radio"/>
Discuss the following questions with the manager before serving.		
How can the appearance of the food be improved?		
How can the flavor or taste of the food be improved?		
How can the texture and tenderness of the food be improved?		
How can the service temperature of the food be improved?		

The manager's signature indicates this practice has been completed satisfactorily. The manager should keep this on file or submit it to the central office to document the completion of the lesson.

Name of Manager: _____ **Date Signed:** _____





Participant's Workbook

Preparing Vegetables

Time: 1 hour



National Food Service Management Institute
The University of Mississippi



Important Terms

Blanch

To dip a food item in to boiling water for a very short time and then to chill very quickly to briefly and partially cook it.

Culinary

Relating to the kitchen or cooking. An example of use is to describe food preparation skills as culinary skills.

Culinary Technique

A step-by-step food preparation method. The culinary techniques discussed in this lesson include steaming, stir-frying, and roasting.

Just-In-Time Preparation

This term is used throughout the lessons to mean preparing a menu item in small enough quantities so that it will be at its peak of quality when placed on the serving line. This preparation schedule avoids holding any food for a long time. Other terms that mean the same thing are *batch cooking* and *cooking to the line*.

Mise en Place (meez-un-plahss)

A French term used by chefs and other culinary professionals to describe all the different things that have to be done to get ready up to the point of cooking. Translated, it means *put in place*. It includes all the *get ready steps* in food preparation such as using the recipe to assemble the equipment needed and getting ingredients ready to combine.

Nutrients

The chemical substances found in food that nourish the body. There are six classes of nutrients: proteins, carbohydrates, fats, water, minerals, and vitamins.

Steaming

A moist-heat cooking technique in which heat is transferred from steam to the food being cooked by direct contact.

Stir-Frying

A dry-heat cooking technique similar to sautéing. Foods are cooked over very high heat using little fat while stirring briskly and constantly.

Roasting

Foods are cooked in the oven, using dry heat. When vegetables are roasted, they are generally sweeter and more tender.

Water-Soluble Vitamins

Vitamins that can dissolve in water and thus can be lost during food preparation. They include the B vitamins and vitamin C.

Seasonal Produce

Fruits and vegetables that are peak at a particular time of the year. Typically this produce is more flavorful and less expensive. Seasonality of produce will depend on region.



Flavor Enhancement Chart

Herbs, spices, fruit juices, or citrus zest or peel can enhance the flavors of fruits and fruit-based dishes.

Seasoning Sensational Vegetables											50 1/4 cup Proportions				
Product	Amount	Ginger Powder	Dill*	Tarragon*	Mint*	American	Asian**	Cajun	Curry	Indian	Italian	Mexican	Tex Mex	Water	Oil
Baked Beans															
Dried	2 lbs					3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Canned	#10 (7 lbs)					3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Black-Eyed Peas															
Dried	2 lbs		4 Tbsp/ 2 Tbsp	2 Tbsp/ 1 Tbsp		3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Frozen	5 lbs		4 Tbsp/ 2 Tbsp	2 Tbsp/ 1 Tbsp		3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Canned	5 lbs drained wt		4 Tbsp/ 2 Tbsp	2 Tbsp/ 1 Tbsp		3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Broccoli (chopped)															
Fresh	5 lbs trimmed 2.5 lbs + 2.5 lbs = 5 lbs					3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Frozen	5 lbs 4.5 lbs thawed & cooked					3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Carrots															
Fresh	5 lbs trimmed	1 tsp	4 Tbsp/ 2 Tbsp	2 Tbsp/ 1 Tbsp		3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Frozen	5 lbs	1 tsp	4 Tbsp/ 2 Tbsp	2 Tbsp/ 1 Tbsp		3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Canned	5 lbs drained wt	1 tsp	4 Tbsp/ 2 Tbsp	2 Tbsp/ 1 Tbsp		3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Cauliflower															
Fresh	5 lbs (aprx. 3,5 heads)		4 Tbsp/ 2 Tbsp			3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Frozen	5 lbs					3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz

Flavor Enhancement Chart, continued

Seasoning Sensational Vegetables											50 1/4 cup Proportions				
Product	Amount	Ginger Powder	Dill*	Tarragon*	Mint*	American	Asian**	Cajun	Curry	Indian	Italian	Mexican	Tex Mex	Water	Oil
Collard Greens															
Frozen	5 lbs					3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Green Beans															
Fresh	5 lbs		4 Tbsp/ 2 Tbsp	2 Tbsp/ 1 Tbsp		3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Frozen	5 lbs		4 Tbsp/ 2 Tbsp	2 Tbsp/ 1 Tbsp		3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Canned (approx.1 #10)	5 lbs drained wt					3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Green Peas															
Frozen	5 lbs		4 Tbsp/ 2 Tbsp	2 Tbsp/ 1 Tbsp	2 Tbsp/ 1 Tbsp	3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Canned (approx.1 #10)	5 lbs drained wt		4 Tbsp/ 2 Tbsp	2 Tbsp/ 1 Tbsp	2 Tbsp/ 1 Tbsp	3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Mixed Vegetables															
Frozen	5 lbs		4 Tbsp/ 2 Tbsp	2 Tbsp/ 1 Tbsp		3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Canned (approx.1 #10)	5 lbs drained wt		4 Tbsp/ 2 Tbsp	2 Tbsp/ 1 Tbsp		3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Potatoes, French Fries															
Frozen	4 lbs					3 Tbsp		2 Tbsp		2 Tbsp		2 Tbsp			
Spinach															
Frozen cooked & drained wt	6 lbs 14 lbs 13 oz					3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Whole Kernel Corn															
Frozen	5 lbs		4 Tbsp/ 2 Tbsp	2 Tbsp/ 1 Tbsp		3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz
Canned (approx.1 #10)	5 lbs drained wt					3 Tbsp	6 Tbsp		4 Tbsp		6 Tbsp		5 Tbsp	4 oz	2 oz

Seasoning Mix: Mix herbs and spices in oil, add water and let stand for 15 minutes.

Stir and add to cooked vegetables.

Dry Mix: Should be sprinkled over potatoes after they have been fried and drained.

*1st measurement is fresh, 2nd is dry

**Asian recipe: Should use 1 oz. sesame oil and 1 oz neutral oil like peanut or corn oil.

Flavor Enhancement Chart, continued

Spice Mixture Chart										
50 1/4 cup Proportions										
Mixture	Salt	Pepper	Garlic Powder	Onion Powder	Ginger Powder	Curry Powder	Chili Powder	Cumin	Dry Mustard	Paprika
American	1 tsp	1 tsp	2 tsp	2 tsp						
Asian	1 tsp		1 Tbsp	3 Tbsp	2 tsp				2 tsp	
Cajun	3/4 tsp	1 tsp	2 tsp	2 tsp						1/4 tsp
Curry	1 tsp	1/2 tsp	1 Tbsp	1 1/2 Tbsp	1 tsp	1 tsp				1 tsp
Indian	1 tsp		2 tsp	1 tsp		2 tsp				
Italian	1 tsp	1/2 tsp	2 1/2 Tbsp	2 Tbsp						2 tsp
Mexican	1 tsp		2 tsp	1 tsp			2 tsp			
Tex Mex	1 tsp	1/2 tsp	1 Tbsp	1 1/2 Tbsp			4 tsp	1/2 tsp		1 tsp

Spice Mixture Chart										
500 Servings										
Mixture	Salt	Pepper	Garlic Powder	Onion Powder	Ginger Powder	Curry Powder	Chili Powder	Cumin	Dry Mustard	Paprika
American	3 Tbsp + 1 tsp	3 Tbsp + 1 tsp	6 Tbsp + 2 tsp	6 Tbsp + 2 tsp						
Asian	3 Tbsp + 1 tsp		1 1/2 c + 2 Tbsp	1 3/4 c + 2 Tbsp	6 Tbsp + 2 tsp				6 Tbsp + 2 tsp	
Cajun	2 Tbsp + 1 1/2 tsp	3 Tbsp + 1 tsp	6 Tbsp + 2 tsp	6 Tbsp + 2 tsp						2 1/2 tsp
Curry	3 Tbsp + 1 tsp	1 Tbsp + 2 tsp	1 1/2 c + 2 Tbsp	3/4 c + 3 Tbsp	3 Tbsp + 1 tsp	3 Tbsp + 1 tsp				3 Tbsp + 1 tsp
Indian	3 Tbsp + 1 tsp		6 Tbsp + 2 tsp	3 Tbsp + 1 tsp		6 Tbsp + 2 tsp				
Italian	3 Tbsp + 1 tsp	1 Tbsp + 2 tsp	1 1/2 c + 1 tsp	1 1/4 c						3 Tbsp + 1 tsp
Mexican	3 Tbsp + 1 tsp		6 Tbsp + 2 tsp	3 Tbsp + 1 tsp			6 Tbsp + 2 tsp			
Tex Mex	3 Tbsp + 1 tsp	1 Tbsp + 2 tsp	1 1/2 c + 2 Tbsp	3/4 c + 3 Tbsp			3/4 c + 4 tsp	1 Tbsp + 2 tsp		2 Tbsp + 1 tsp



Vegetable Steamer Chart

Timetable for Cooking or Steaming Fresh or Frozen Vegetables

For 100 Servings, 1/4 Cup Each

Vegetables Fresh or (As Purchased)	Amount to Purchase Frozen	Ready to Cook (Pounds)	Amount of Water (Pounds)	BOILING		STEAMING (Minutes)
				Cooking Time After Water Boils (Quarts)	Time at 5 Pounds Pressure (Minutes)	
Asparagus: spears cuts and tips	Fresh Frozen	20.7 12.3	11.0 1 1/4	3 1/4 7 to 10	10 to 25 5 to 10	7 to 10
Beans or peas, blackeye	Fresh Frozen	19 8.9	9.7 8.9	2 1/2 1 3/4	30 to 45 15 to 30	20 to 40 20 to 30
Beans, green, cut	Fresh Frozen	9 8.7	7.9 8.7	1 3/4 1	15 to 30 10 to 20	20 to 30 10 to 15
Beans, lima: Baby Fordhook	Fresh Frozen Frozen	21.1 9.2 9.0	9.3 9.2 9.0	2 1/2 1 1/2 1 1/2	15 to 25 12 to 15 6 to 12	15 to 20 10 to 15 12 to 20
Beet greens	Fresh	28.6	13.7	water on leaves	15 to 25	15 to 25
Beets, whole for slicing	Fresh	13.0	9.5	to cover	45 to 60	60 to 75
Broccoli: spears cut or chopped	Fresh Frozen Frozen	10.6 10.4 10.4	8.6 10.4 10.4	2 1/4 1 1/2 1 1/2	10 to 25 10 to 15 6 to 20	7 to 10 5 to 10 10 to 20
Brussel sprouts	Fresh Frozen	11.7 9.6	8.9 9.6	6 1 1/2	10 to 20 10 to 15	5 to 12 5 to 10
Cabbages (green and red): shredded wedges	Fresh Frozen	7.3 11.6	6.5 10.5	1 1/2 1 3/4	10 to 15 15 to 20	5 to 12 12 to 20
Carrots: whole (for slicing) cuts and tips	Fresh Frozen	11.9 9.5	8.3 9.5	2 1/2 1	20 to 30 8 to 10	15 to 30 3 to 5
Cauliflower, flowerets	Fresh Frozen	11.3 10.9	7.0 10.9	4 1/2 1 1/2	15 to 20 10 to 12	8 to 12 4 to 5
Celery, 1" pieces	Fresh	12.4	10.6	3 1/2	15 to 20	10 to 15
Chard	Fresh	15.8	14.5	water on leaves	15 to 25	15 to 25
Collard greens	Fresh Frozen	9.6 10.8	7.1 10.8	3 1/2 1 3/4	20 to 40 30 to 40	15 to 30 20 to 40
Corn: on cob (1/2 medium ear) whole kernel	Fresh Frozen	27 9.1	17.6 9.1	6 or to cover 1 1/2	5 to 15 5 to 10	8 to 10 5 to 10
Eggplant, pieces or slices	Fresh	14.8	12.0	3 1/2	15 to 20	10 to 15
Kale	Fresh Frozen	8.5 10.6	5.7 10.6	2 1 3/4	25 to 45 20 to 30	15 to 35 15 to 30
Mustard greens chopped	Fresh Frozen	7.6 8.6	7.1 8.6	water on leaves 1 3/4	15 to 25 20 to 30	15 to 25 15 to 20
Okra, whole	Fresh Frozen	10.3 8.5	9.0 8.5	2 1 1/4	10 to 15 3 to 5	8 to 15 3 to 5
Onions: Mature, quartered if large	Fresh	14.1	12.4	7	20 to 35	20 to 35

Continued

Vegetable Steamer Chart, continued

Timetable for Cooking or Steaming Fresh or Frozen Vegetables

For 100 Servings, 1/4 Cup Each

Vegetables Fresh or (As Purchased)	Amount to Purchase Frozen	Ready to Cook (Pounds)	Amount of Water (Pounds)	BOILING		STEAMING (Minutes)
				Cooking Time After Water Boils (Quarts)	Time at 5 Pounds Pressure (Minutes)	
Parsnips, 3" pieces	Fresh	12.3	10.2	4 3/4	20 to 30	15 to 20
Peas and carrots	Frozen	9.2	9.2	1	8 to 10	3 to 5
Peas, green shelled	Fresh	24.7	9.4	2	10 to 20	10 to 20
	Frozen	9.9	9.9	1	5 to 10	3 to 5
Potatoes, whole	Fresh	11.3	9.2	5	30 to 45	30 to 45
Rutabagas, 1" cubes	Fresh	12	10.2	2 1/2	20 to 30	15 to 30
Soybeans, green	Fresh	14.5	9.4	1 3/4	10 to 20	
Spinach, leaf	Fresh	13.1	11.5	water on leaves	10 to 20	4 to 5
	Frozen	15.3	15.3	1 1/4	5 to 10	5 to 10
Squash, winter: Butternut, pieces mashed	Fresh	13.3	11.2	5 1/4	15 to 30	15 to 20
	Frozen	14.3	14.3			20 to 25 (covered)
Succotash	Frozen	10.6	10.6	2	6 to 15	12 to 20
Sweet potatoes, whole	Fresh	11.0	8.6	5	30 to 45	20 to 40
Turnip green chopped	Fresh	15.4	10.8	water on leaves	15 to 25	15 to 25
	Frozen	10.5	10.5	1 3/4	20 to 30	15 to 20
Vegetables, mixed	Frozen	12.3	12.3	1	12 to 20	12 to 20

NOTE: Cooking times for fresh vegetables are approximate; they can differ with variety, maturity, quality, and size of vegetables.

Quality Score Card for Cooked Vegetables

Date: _____ Name of Menu Item: _____

Proudly Prepared by: _____

Quality Scored by: _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **N/A** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

QUALITY STANDARD	YES	NO	N/A	COMMENTS
APPEARANCE				
Bright color typical of the vegetable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Vegetable pieces are similar in size.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Vegetable pieces are intact (pieces are not overcooked with a mushy appearance).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
There is no visible oil or fat.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Garnish is edible and appropriate for the dish.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TEXTURE OR CONSISTENCY				
Vegetable is at the peak of ripeness.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
All pieces of the vegetable have the same texture.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FLAVOR AND SEASONING				
Vegetable has a definite, good flavor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Seasonings are detectable but not overpowering.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Seasonings enhance the vegetable flavor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
A minimal amount of salt has been added (recipe used).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
A minimal amount or no fat has been added (recipe used).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
If a sauce is used, it complements the vegetable (mild, not overpowering).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SERVICE TEMPERATURE				
160 °F – 180 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Culinary Practice Score Card for Cooked Vegetables

Name(s): _____

Purpose: The purpose of the activity is to practice Preparing Vegetables.

Culinary Technique: Identify the culinary technique that you will use. Refer to the previous pages for a description of each technique.

Name of the Recipe: _____

Date for Production: _____

Directions: The manager and school nutrition assistant(s) will select a recipe for vegetables that includes one of the culinary techniques described in this lesson. Check **YES** or **NO** when each step is completed. (This practice activity may be completed individually or with a partner. The manager will make this assignment at the end of the lesson.)

	YES	NO
Plan food production for just-in-time service.		
Did you plan food production for just-in-time service?	<input type="radio"/>	<input type="radio"/>
Review the Quality Score Card and the recipe.		
Did you review the recipe so you are familiar with the ingredients, equipment, and directions?	<input type="radio"/>	<input type="radio"/>
Did you review the Quality Score Card so you will know how the finished product should look and taste?	<input type="radio"/>	<input type="radio"/>
Organize equipment and ingredients.		
Did you assemble all the equipment needed?	<input type="radio"/>	<input type="radio"/>
Did you assemble all of the ingredients needed?	<input type="radio"/>	<input type="radio"/>
Use the right culinary technique.		
Did you use the culinary technique correctly?	<input type="radio"/>	<input type="radio"/>
Deliver a quality product.		
Did you use the Quality Score Card to evaluate the product?	<input type="radio"/>	<input type="radio"/>
Did you review the product with the manager?	<input type="radio"/>	<input type="radio"/>
Discuss the following questions with the manager before serving.		
How can the appearance of the food be improved?		
How can the flavor or taste of the food be improved?		
How can the texture and tenderness of the food be improved?		
How can the service temperature of the food be improved?		

The manager's signature indicates this practice has been completed satisfactorily. The manager should keep this on file or submit it to the central office to document the completion of the lesson.

Name of Manager: _____ Date Signed: _____





Participant's Workbook

Preparing Salads

Time: 1 hour



National Food Service Management Institute
The University of Mississippi



Important Terms

Salad Greens

Arugula – medium green leaves; pungent flavor

Endive, Belgian – tight, elongated head; slightly bitter flavor

Endive, Curly – thick, narrow leaves with curly edges; bitter flavor

Escarole – flat, curly-edged leaves is a loose head; bitter flavor

Lettuce, Butterhead – tender, loose, round head of leaves; mild flavor

Lettuce, Iceberg – crisp, pale-green leaves, compact head; very mild flavor.

Lettuce, Leaf – crisp-tender, curly leaves, loose cluster; red or green; mild flavor

Lettuce, Romaine – elongated head, crisp leaves; fairly mild flavor

Radicchio – fairly tender, red-purple leaves, cabbage-like head; slightly bitter flavor

Spinach – tender, deep green leaves; rigid stems should be removed before serving; fairly mild flavor

Watercress – small, round leaves on slender stalks; delicate texture; peppery, pungent flavor

Other Salad Ingredients:

Asparagus

Avocados

Broccoli

Cabbage – green and red

Carrots

Cauliflower

Celery

Cucumbers

Jicama

Mushrooms

Onions – white, red, or spring

Peppers – green, orange, red, and yellow

Radishes

Summer squash – yellow crookneck and zucchini

Tomatoes

Culinary

Relating to the kitchen or cooking. An example of use is to describe food preparation skills as culinary skills.

Culinary Technique

A step-by-step food preparation method. The culinary techniques described in this lesson include preparing fresh fruits and baking fruits.

Danger Zone

According to the *FDA Food Code*, the temperatures between 41 °F and 135 °F are ideal for bacteria to grow. All potentially hazardous foods should be kept below 41 °F or above 135 °F.

Ethylene gas

A naturally occurring gas produced when some fruits and vegetables begin to ripen.

Julienne

Cutting vegetables or other food products into matchstick shapes.

Just-In-Time Preparation

Preparing a menu item in small enough amounts that it will be at its peak of quality when placed on the service line. This preparation schedule avoids holding any food for a long time. Other terms that mean the same thing are *batch cooking* and *cooking to the line*.

Mise en Place (meez-un-plahss)

A French term used by chefs and other culinary professionals to describe all the different things that have to be done to get ready up to the point of cooking. Translated, it means *put in place*. It includes all the *get ready steps* in food preparation such as using the recipe to assemble the equipment needed and getting ingredients ready to combine.

Nutrients

The chemical substances found in food that nourish the body. There are six classes of nutrients: proteins, carbohydrates, fats, water, minerals, and vitamins.

Seasonal Produce

Fruits and vegetables that are at their peak of production at a particular time of the year. Typically this produce is more flavorful and less expensive. Seasonality of produce will depend on region.

Keep Fresh Produce Flavorful

When produce arrives at the back door, it should be in excellent condition. From that point on, the quality is controlled by the school nutrition assistants in the school kitchen. The quality of fresh produce, both fruits and vegetables is affected by:

Temperature – For every 10 °F increase in temperature beyond the recommended temperature, a produce item can lose half its shelf life. Store produce at the right temperature for the variety.

Product Rotation – When produce is delivered, the date should be written on the box. Then, the oldest produce should be used first.

Storage Conditions – Different fruits and vegetables should be stored according to recommendations from produce experts.

Proper Handling During

Preparation – Fresh produce, both fruits and vegetables, benefit from being prepared just in time for service.

Some fresh fruits must be ripe before they are refrigerated or served. Some fruits ripen at room temperature. Once ripened, the fruits should be refrigerated. Fruits that ripen at room temperature:

- Avocados
- Kiwifruit
- Nectarines
- Peaches
- Pears
- Plums

Never refrigerate bananas.

Ethylene gas is naturally produced from some fruits and vegetables. Ethylene gas will cause certain fruits and vegetables to ripen and deteriorate quickly. Ethylene producing fruits and vegetables should be kept separate from ethylene sensitive produce.

Ethylene Producing Produce

Apples*
Apricots*
Asparagus*
Avocado*
Bananas*
Cantaloupes
Cherimoya*
Figs
Guava
Honeydew melon
Kiwifruit
Mangos*
Nectarines*
Papayas*
Passion fruit*
Peaches*
Pears*
Persimmons
Plantains
Plums
Prunes
Tomatoes*

*Ethylene producing *and* ethylene sensitive produce

Ethylene Sensitive Produce

Broccoli
Brussels sprouts
Cabbage
Carrots
Cauliflower
Cucumbers
Eggplant
Grapes
Green beans
Leafy greens
Lettuce
Okra
Peas
Peppers
Spinach
Squash
Sweet potatoes
Watermelon

Quality Score Card for Salads

Date: _____ Name of Menu Item: _____

Proudly Prepared by: _____

Quality Scored by: _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **N/A** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

QUALITY STANDARD	YES	NO	N/A	COMMENTS
APPEARANCE				
Bright color is typical of the fresh greens.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Bright color is typical of other fresh ingredients (no discoloration).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Salad appears moist, not dry or excessively wet.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Salad ingredients are even pieces.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Salad ingredients appear crisp, not limp.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Garnish is edible and appropriate for the salad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TEXTURE OR CONSISTENCY				
Salad ingredients are crisp, not soggy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Meat or pasta/rice salads are tender but not mushy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FLAVOR AND SEASONING				
Salad ingredients have a fresh, distinctive flavor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Seasonings enhance the salad but are not too salty or too tart.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
A choice of low-fat and/or fat-free salad dressings is available.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SERVICE TEMPERATURE				
Chilled 34 °F – 38 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	



Culinary Practice Score Card for Salads

Name(s): _____

Purpose: The purpose of the activity is to practice Preparing Salads.

Culinary Technique: Identify the culinary technique that you will use. Refer to the previous pages for a description of each technique.

Name of the Recipe: _____

Date for Production: _____

Directions: The manager and school nutrition assistant(s) will select a recipe for salad that includes one of the culinary techniques described in this lesson. Check **YES** or **NO** when each step is completed. (This practice activity may be completed individually or with a partner. The manager will make this assignment at the end of the lesson.)

	YES	NO
Plan food production for just-in-time service.		
Did you plan food production for just-in-time service?	<input type="radio"/>	<input type="radio"/>
Review the Quality Score Card and the recipe.		
Did you review the recipe so you are familiar with the ingredients, equipment, and directions?	<input type="radio"/>	<input type="radio"/>
Did you review the Quality Score Card so you will know how the finished product should look and taste?	<input type="radio"/>	<input type="radio"/>
Organize equipment and ingredients.		
Did you assemble all the equipment needed?	<input type="radio"/>	<input type="radio"/>
Did you assemble all of the ingredients needed?	<input type="radio"/>	<input type="radio"/>
Use the right culinary technique.		
Did you use the culinary technique correctly?	<input type="radio"/>	<input type="radio"/>
Deliver a quality product.		
Did you use the Quality Score Card to evaluate the product?	<input type="radio"/>	<input type="radio"/>
Did you review the product with the manager?	<input type="radio"/>	<input type="radio"/>
Discuss the following questions with the manager before serving.		
How can the appearance of the food be improved?		
How can the flavor or taste of the food be improved?		
How can the texture and tenderness of the food be improved?		
How can the service temperature of the food be improved?		

The manager's signature indicates this practice has been completed satisfactorily. The manager should keep this on file or submit it to the central office to document the completion of the lesson.

Name of Manager: _____ Date Signed: _____





Participant's Workbook

Preparing Meat, Poultry, and Fish

Time: 1 hour



National Food Service Management Institute
The University of Mississippi



Important Terms

Braise

A moist-heat cooking method used for less tender, large cuts of meat.

Culinary

Relating to the kitchen or cooking. An example of use is to describe food preparation skills as culinary skills.

Culinary Technique

A step-by-step food preparation method. The culinary techniques discussed in this lesson include roasting/baking, sautéing, braising, and stewing meat, poultry, and fish.

Dry Heat

Cooking without adding any liquid. Examples are roasting, broiling, pan-broiling, griddle broiling, and sautéing.

Just-In-Time Preparation

Preparing a menu item in small enough quantities so that it will be at its peak of quality when placed on the serving line. This preparation schedule avoids holding any food for a long time. Other terms that mean the same thing are *batch cooking* and *cooking to the line*.

Marinate

To soak a food in a seasoned liquid to flavor and tenderize the food. The liquid is called a marinade.

Meat

The edible portion of mammals, the main ones in the United States being cattle (beef), swine (pork), and sheep (mutton and lamb).

Moist Heat

Cooking with added moisture. Examples are braising, stewing, and poaching.

Mirepoix (miro-poy)

A seasoning mixture of two parts onion, one part celery, and one part carrots. Herbs and spices may be added. This coarse chopped vegetable mixture is added to meats that are roasted or braised for flavor. The juices are drained off when the meat is done and can then be served with the meat or used to make sauces and gravy. The juices should be chilled so that the fat can be removed.

Important Terms, continued

Mise en Place (meez-un-plahss)

A French term used by chefs and other culinary professionals to describe all the different things that have to be done to get ready up to the point of cooking. Translated, it means *put in place*. It includes all the *get ready steps* in food preparation such as using the recipe to assemble the equipment needed and getting ingredients ready to combine.

Potentially Hazardous Food

Food that can support the growth of certain toxic microorganisms. This group includes meats, poultry, eggs, fish, and some plant foods. These foods should be kept cold (below 41 °F) or hot (above 135 °F). Between 41 °F–135 °F is the Danger Zone where microorganisms can grow quickly.

Poultry

Domestic birds kept for eggs and meat. The poultry products used most often in school meals are chicken and turkey.

Roast

A dry-heat technique of cooking meat in an oven with no added moisture. Baking is the same technique when applied to meat and poultry.

Sauté

To cook food quickly using small amount of fat, stirring to brown it evenly.

Sear

To brown meat on all sides before braising or stewing.

Simmer

To cook on low heat with added moisture such as stock or water (braising or stewing).

Dry Heat - Roasting or Baking

Roasting or baking is cooking meat, poultry, or fish in the oven without liquid and without a cover on the cooking vessel.

1. Remove all visible fat.

2. Season.

Follow the recipe. Add appropriate seasonings and flavorings to replace flavor lost when fat is removed. If a meat thermometer is used, place it in the thickest part of the meat, away from bone or fat. Since salt penetrates meat only about an inch and retards browning, most recipes suggest adding salt at the end of cooking. Do not add salt unless the recipe calls for it.

3. Place in the cooking utensil.

Do not cover and do not add any liquid. Place meat on a rack when appropriate so fat will drain and hot air can circulate on all sides.

4. Roast or bake in a slow oven until the internal temperature is at least 165 °F (or a higher temperature specified in the recipe).

Follow the recipe for the oven temperature. Some recipes for large pieces of meat or poultry suggest adding a mirepoix to the pan during the last half hour of roasting.

5. Remove from the oven and serve.

For large pieces of meat, like a turkey or a large roast, allow the meat to sit in a warm place for about 15 minutes before carving or slicing. This makes the meat firmer, juicier, and easier to slice. Meats should be sliced across the grain.

6. Hold cooked meat and poultry the correct way.

If the meat or poultry will not be served immediately, it should be covered and kept in a warmer at the correct temperature or chilled in the refrigerator. Never hold a meat product at room temperature.

Dry Heat - Sautéing

Sautéing is using high heat and a small amount of fat to cook meat, poultry, and fish rapidly. Searing and stir-frying are also sautéing techniques.

1. Prepare the meat or poultry by making sure it is dry.

If a marinade has been used, drain it thoroughly and pat the food dry. Food with a lot of moisture will steam rather than sauté.

2. Add oil to the pan according to recipe.

A tilting braising pan is ideal for this technique. Measure the oil carefully.

3. Heat the oil; add the meat, poultry, or fish.

The meat, poultry, or fish pieces should be added to the pan in a single layer. If the pieces are touching, the product will steam, not sauté.

4. Cook the meat by gently turning until browned on all sides and cooked evenly.

Some recipes suggest that the cooked meat be removed from the pan and the remaining flavored juices be used to make a sauce. Follow the recipe.

5. Hold cooked meat and poultry the correct way.

Sautéed meals should be cooked in batches just-in-time for service. Covering a sautéed food during holding causes it to steam and the advantages of the sauté technique are lost. Serve immediately. Never hold a meat product at room temperature.

Moist Heat - Braising and Stewing

Braising and stewing are a combination of dry-heat and moist-heat cooking used for less tender cuts of meat. Braising is used for large cuts of meat. The same technique is called stewing when used for bite-sized pieces of meat, poultry, or fish.

1. Trim fat and prepare meat according to the recipe.

2. Sear the meat on all sides.

Searing meat before braising or stewing adds color and flavor. Follow the recipe to use a small amount of oil or preferably, no oil. Brown the meat on all sides in a hot pan. For large pieces of meat, use a pan in the oven or a steam-jacketed kettle. For smaller pieces, use a tilting braising pan, a grill, or brown in a hot oven.

3. Remove the meat from the pan and add a mirepoix.

Some recipes call for a mirepoix to be added to the pan and cooked. Follow the recipe.

4. Add the seared meat back to the cooking pan along with the liquid for cooking.

When a steam jacketed kettle is used for braising or stewing, more liquid will be needed than when using a roasting pan in the oven or when using a tilting braising pan. Follow the recipe and avoid using too much liquid, which weakens the flavor of a sauce made with the liquid.

5. Cover tightly and simmer until tender.

Follow the recipe for the temperature and time for the equipment being used. Do not allow the liquid to boil. The size of the cut of meat and the kind of meat will also influence the cooking time. Braised or stewed meats are done when they are tender.

6. Remove the meat from the cooking liquid.

Some recipes suggest the cooking liquid be cooked an additional time to reduce the volume and concentrate the flavor. The cooking liquid may also be thickened with a roux or slurry. How to thicken using a roux or slurry is described in the lesson on Preparing Sauces.

7. Hold cooked meat and poultry the correct way.

If the meat, poultry, or fish will not be served immediately, it should be covered and kept in a warmer at the correct temperature or chilled in the refrigerator. Never hold a meat product at room temperature.



Baked Cajun Fish

Meat/Meat Alternate

Main Dishes

D-46

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Paprika		2 tsp	1 tbsp 1 tsp	1 1/2 tsp	1. Mix paprika, granulated garlic, onion salt, red pepper, black or white pepper, oregano, and thyme in a small bowl. Reserve for step 3.
Granulated garlic		2 tsp	1 Tbsp 1 tsp	1 1/2 tsp	
Onion salt		2 tsp	1 Tbsp 1 tsp	1 1/2 tsp	
Red pepper		3/4 tsp	1 1/2 tsp	2 tsp	
Ground black or white pepper		3/4 tsp	1 1/2 tsp	2 tsp	
Dried oregano		1 tsp	1 1/2 tsp	2 tsp	
Dried thyme		1 tsp	1 1/2 tsp	2 tsp	
Frozen fish portions (3 oz each)	9 lb 7 oz	50 each	18 lb 14 oz	100 each	2. Place 25 fish portions into each ungreased steamtable pan (12" x 20" x 2 1/2"). For 50 servings, use 2 pans. For 100 servings, use 4 pans.
Lemon juice		1/2 cup	1 cup	1 1/2 cups	3. Sprinkle 1/4 cup of lemon juice and 1 Tbsp 2 tsp of seasoning mix over the top of each pan.
Margarine or butter, melted	6 oz	3/4 cup	12 oz	1 1/2 cups	4. Drizzle 3/4 cup of melted margarine over the seasonings.
					5. Bake: Conventional oven: 350° F for 20 minutes Convection oven: 350° F for 15 minutes Fish should flake easily with a fork. CCP: Heat to 145° F or higher for at least 15 seconds.
					6. CCP: Hold for hot service at 135° F or higher.

SERVING:

1 portion provides 2 oz equivalent meat/meat alternate.

YIELD:

50 Servings: about 7 lb 14 oz

VOLUME:

50 Servings: 2 steamtable pans

100 Servings: about 15 lb 12 oz

100 Servings: 4 steamtable pans

Edited 2004

Baked Cajun Fish

Meat/Meat Alternate

Main Dishes

D-46

Special Tips:

- 1) For best results, batch-cook fish throughout the meal.
 - 2) 3 oz boneless, skinless chicken breasts or thighs may be substituted for fish.
- CCP: Bake chicken to 165° F or higher for at least 15 seconds.

Nutrients Per Serving			
Calories	128	Saturated Fat	1.75 g
Protein	12.58 g	Cholesterol	43 mg
Carbohydrate	0.43 g	Vitamin A	220 IU
Total Fat	8.12 g	Vitamin C	1.3 mg
		Iron	0.63 mg
		Calcium	9 mg
		Sodium	145 mg
		Dietary Fiber	0.1 g

Chicken Fajitas

Meat/Meat Alternate-Vegetable-Grains/Breads Main Dishes D-40

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Vegetable stock, non-MSG		2 cups		1 qt	1. Dissolve the cornstarch in the vegetable stock.
Cornstarch		¼ cup	2 ¼ oz	½ cup	2. Heat over medium heat until thickened. Cool.
Vegetable oil		2 cups		1 qt	3. Add the oil to the cooled, thickened stock mixture.
White vinegar		2 cups		1 qt	4. Combine the vinegar, sugar, pepper, granulated garlic, chili powder, cumin, and oregano in a bowl. Whisk into the stock mixture.
Sugar	12 oz	1 ½ cups	1 lb 8 oz	3 cups	
Ground black or white pepper		1 Tbsp 1 tsp		2 Tbsp 2 tsp	
Granulated garlic		1 Tbsp 1 tsp		2 Tbsp 2 tsp	
Chili powder		2 Tbsp		¼ cup	
Ground cumin		1 ¼ tsp		2 ½ tsp	
Dried oregano		2 tsp		1 Tbsp 1 tsp	
Raw, boned, skinless chicken breast, ½" slices	9 lb		18 lb		5. Pour marinade over the sliced chicken. Marinate overnight in the refrigerator.
					6. Drain the chicken. Discard any leftover marinade.
					7. Prepare no more than 50 portions per batch.
					Preheat grill to 350° F. Add 9 lb of the sliced chicken and sauté about 10 minutes. Sauté remaining chicken. Remove to steamable pan (12" x 20" x 2 ½). For 50 servings, use 1 pan. For 100 servings, use 2 pans.
Canned liquid pack whole-kernel corn, drained OR Frozen whole-kernel corn	2 lb 2 oz OR 2 lb 4 oz	1 qt 1 cup (½ No. 10 can) OR 1 qt 2 ½ cups	4 lb 4 oz OR 4 lb 4 oz	2 qt 2 cups (1 No. 10 can) OR 3 qt ½ cup	8. Combine corn, onions, green peppers, canned tomatoes, and salsa in pot. Cook 5 lb 8 oz (3 qt) of this mixture over low heat until vegetables are heated thoroughly, about 5 minutes. Add to cooked chicken.
*Fresh onions, diced	12 oz	2 cups	1 lb 8 oz	1 qt	
*Fresh green peppers, diced	8 oz	1 ½ cups 2 Tbsp	1 lb	3 ¼ cups	
Canned diced tomatoes, drained	1 lb	1 ¾ cups 2 Tbsp (¼ No. 10 can)	2 lb	3 ¾ cups (½ No. 10 can)	
Canned salsa	1 lb	1 ¾ cups 2 Tbsp	2 lb	3 ¾ cups	CCP: Heat to 165° F or higher for at least 15 seconds.

Chicken Fajitas

Meat/Meat Alternate-Vegetable-Grains/Breads	Main Dishes	D-40
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Enriched flour tortillas, 8-inch (at least 0.9 oz each)	50 each	100 each	9. CCP: Hold for hot service at 135° F or higher. For each serving, place No. 8 scoop (½ cup) of filling on each tortilla. If desired, fold or roll tortilla over filling.
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Comments:
*See Marketing Guide.

Marketing Guide for Selected Items		
Food as Purchased for	50 Servings	100 Servings
Mature onions	14 oz	1 lb 12 oz
Green peppers	11 oz	1 lb 6 oz

SERVING:	YIELD:	VOLUME:
1 fajita provides 2 oz equivalent meat/meat alternate, ½ cup of vegetable, and 1 serving of grains/breads.	50 Servings: about 12 lb 4 oz (filling)	50 Servings: about 1 gallon 2 ¼ quarts (filling)

100 Servings: about 24 lb 8 oz (filling) **100 Servings:** about 3 gallons 2 cups (filling)

Edited 2004

Special Tips:

- 1) If a grill is not available, a steam-jacketed kettle may be used to sauté the chicken.
- 2) Lowfat sour cream (1 Tbsp per serving) and salsa (2 Tbsp per serving) make excellent garnishes.
- 3) This makes an attractive lunch plate when served with Refried Beans (1-15).

Chicken Fajitas

Meat/Meat Alternate-Vegetable-Grains/Breads

Main Dishes

D-40

Nutrients Per Serving			
Calories	241	Saturated Fat	1.41 g
Protein	22.00 g	Cholesterol	51 mg
Carbohydrate	23.38 g	Vitamin A	240 IU
Total Fat	6.28 g	Vitamin C	6.7 mg
		Iron	2.11 mg
		Calcium	54 mg
		Sodium	284 mg
		Dietary Fiber	1.8 g



Chili con Carne with Beans

Meat/Meat Alternate-Vegetable

Main Dishes

D-20

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Raw ground beef (no more than 20% fat)	7 lb		14 lb		1. Brown ground beef. Drain. Continue immediately.
*Fresh onions, chopped OR Dehydrated onions	14 oz OR 2 ½ oz	2 ½ cups OR 1 ¼ cups	1 lb 12 oz OR 5 oz	1 qt ¾ cup OR 2 ½ cups	2. Add onions, granulated garlic, green pepper (optional), pepper, chili powder, paprika, onion powder, and ground cumin. Cook for 5 minutes.
Granulated garlic		1 Tbsp 1 ½ tsp		3 Tbsp	
*Fresh green pepper, chopped (optional)	8 oz	1 ½ cups 2 Tbsp	1 lb	3 ¼ cups	
Ground black or white pepper		2 tsp		1 Tbsp 1 tsp	
Chili powder		3 Tbsp		¼ cup 2 Tbsp	
Paprika		1 Tbsp		2 Tbsp	
Onion powder		1 Tbsp		2 Tbsp	
Ground cumin	1 oz	¼ cup	2 oz	½ cup	
Canned diced tomatoes, with juice	3 lb 3 oz	1 qt 2 ¼ cups (½ No. 10 can)	6 lb 6 oz	3 qt ½ cup (1 No. 10 can)	3. Stir in tomatoes, water, and tomato paste; mix well. Bring to boil. Reduce heat. Cover. Simmer slowly, stirring occasionally until thickened, about 40 minutes.
Water		2 qt 1 cup		1 gal 2 cups	
Canned tomato paste	1 lb 12 oz	3 cups 2 Tbsp (¼ No. 10 can)	3 lb 8 oz	1 qt 2 ¼ cups (½ No. 10 can)	
Canned pinto or kidney beans, drained	3 lb 6 oz	1 qt 3 ½ cups (½ No. 10 can)	6 lb 12 oz	3 qt 3 cups (1 No. 10 can)	4. Stir in beans. Cover and simmer. Stir occasionally.
OR *Dry pinto or kidney beans, cooked (see Special Tip)	2 lb 4 oz	1 qt 2 cups	4 lb 8 oz	3 qt	CCP: Heat to 155° F or higher for 15 seconds. OR If using previously cooked and chilled beans: CCP: Heat to 165° F or higher for at least 15 seconds.
					5. Pour into serving pans.
					6. CCP: Hold for hot service at 135° F or higher.
					Portion with 4 oz ladle (½ cup).
Reduced fat Cheddar cheese, shredded (optional)	1 lb 8 oz	1 qt 2 cups	3 lb	3 qt	7. Garnish with cheese (optional).

Chili con Carne with Beans

Meat/Meat Alternate-Vegetable

Main Dishes

D-20

Comments:

*See Marketing Guide.

Marketing Guide for Selected Items		
Food as Purchased for	50 Servings	100 Servings
Mature onions	1 lb	2 lb
Green peppers	11 oz	1 lb 6 oz
Dry pinto beans, dry OR	1 lb OR	2 lb OR
Dry kidney beans	1 lb	2 lb

SERVING:	YIELD:	VOLUME:
----------	--------	---------

½ cup (4 oz ladle) provides 2 oz equivalent meat/meat alternate and ¾ cup of vegetable.

50 Servings: about 16 lb 4 oz

50 Servings: about 1 gallons 2 ¼ quarts

100 Servings: about 32 lb 8 oz

100 Servings: about 3 gallons 2 cups

Tested 2004

Special Tip:

SOAKING BEANS

Overnight method: Add 1 ¾ qt cold water to every 1 lb of dry beans. Cover and refrigerate overnight. Discard the water. Proceed with recipe.

Quick-soak method: Boil 1 ¾ qt of water for each 1 lb of dry beans. Add beans and boil for 2 minutes. Remove from heat and allow to soak for 1 hour. Discard the water. Proceed with recipe.

COOKING BEANS

Once the beans have been soaked, add ½ tsp salt for every lb of dry beans. Boil gently with lid tilted until tender, about 2 hours.

Use hot beans immediately.

CCP: Hold for hot service at 135° F.

OR

Or, chill for later use.

CCP: Cool to 70° F within 2 hours and to 41° F or lower within an additional 4 hours.

1 lb dry pinto beans = about 2 ¾ cups dry or 5 ¼ cups cooked beans.

Variation:

A. Chili con Carne without Beans

50 servings: In step 1, use 8 lb 10 oz raw ground beef. Continue with steps 2 and 3. In step 4, omit pinto or kidney beans. Continue with steps 5 - 7.

100 servings: In step 1, use 17 lb 4 oz raw ground beef. Continue with steps 2 and 3. In step 4, omit pinto or kidney beans. Continue with steps 5 - 7.

Chili con Carne with Beans

Meat/Meat Alternate-Vegetable

Main Dishes

D-20

1 lb dry kidney beans = about 2 1/2 cups dry or 6 1/4 cups cooked beans.

Nutrients Per Serving			
Calories	180	Saturated Fat	3.57 g
Protein	15.44 g	Cholesterol	42 mg
Carbohydrate	10.68 g	Vitamin A	813 IU
Total Fat	8.58 g	Vitamin C	14.5 mg
		Iron	2.71 mg
		Calcium	46 mg
		Sodium	204 mg
		Dietary Fiber	2.5 g



Quality Score Card for Meat, Poultry, and Fish

Date: _____ Name of Menu Item: _____

Proudly Prepared by: _____

Quality Scored by: _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **N/A** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

QUALITY STANDARD	YES	NO	N/A	COMMENTS
APPEARANCE				
Product appears moist.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product has been trimmed of any excess visible fat.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product has been drained and no cooking fat is visible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Color is a rich brown, characteristic of the meat, poultry, or fish item.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Browning is even and correct for the product (not too brown).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Portions are uniform in size.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TEXTURE OR CONSISTENCY				
Product is tender and easily chewed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product can be pierced with a fork with minimum pressure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product is firm and moist.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FLAVOR AND SEASONING				
Product is juicy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Flavor is fresh and appropriate for the product (no refrigerator taste or freezer burn).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Seasonings enhance but do not overpower the taste (no greasy taste, or too much salt).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SERVICE TEMPERATURE				
Meat products served hot - 150 °F–180 °F or above	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Poultry products served hot - 165 °F–180 °F or above	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Meat or poultry products served cold – 40 °F or below	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	



Culinary Practice Score Card for Meats, Poultry, and Fish

Name(s): _____

Purpose: The purpose of the activity is to practice Preparing Meats, Poultry, and Fish.

Culinary Technique: Identify the culinary technique that you will use. Refer to the previous pages for a description of each technique.

Name of the Recipe: _____

Date for Production: _____

Directions: The manager and school nutrition assistant(s) will select a recipe for meat, poultry, or fish that includes one of the culinary techniques described in this lesson. Check **YES** or **NO** when each step is completed. (This practice activity may be completed individually or with a partner. The manager will make this assignment at the end of the lesson.)

	YES	NO
Plan food production for just-in-time service.		
Did you plan food production for just-in-time service?	<input type="radio"/>	<input type="radio"/>
Review the Quality Score Card and the recipe.		
Did you review the recipe so you are familiar with the ingredients, equipment, and directions?	<input type="radio"/>	<input type="radio"/>
Did you review the Quality Score Card so you will know how the finished product should look and taste?	<input type="radio"/>	<input type="radio"/>
Organize equipment and ingredients.		
Did you assemble all the equipment needed?	<input type="radio"/>	<input type="radio"/>
Did you assemble all of the ingredients needed?	<input type="radio"/>	<input type="radio"/>
Use the right culinary technique.		
Did you use the culinary technique correctly?	<input type="radio"/>	<input type="radio"/>
Deliver a quality product.		
Did you use the Quality Score Card to evaluate the product?	<input type="radio"/>	<input type="radio"/>
Did you review the product with the manager?	<input type="radio"/>	<input type="radio"/>
Discuss the following questions with the manager before serving.		
How can the appearance of the food be improved?		
How can the flavor or taste of the food be improved?		
How can the texture and tenderness of the food be improved?		
How can the service temperature of the food be improved?		

The manager's signature indicates this practice has been completed satisfactorily. The manager should keep this on file or submit it to the central office to document the completion of the lesson.

Name of Manager: _____ **Date Signed:** _____





Participant's Workbook

Preparing Sandwiches

Time: 1 hour



National Food Service Management Institute
The University of Mississippi



Important Terms

Culinary

Relating to the kitchen or cooking. An example of use is to describe food preparation skills as culinary skills.

Culinary Technique

A step-by-step food preparation method.

Just-In-Time Preparation

Preparing a menu item in small enough amounts that it will be at its peak of quality when placed on the service line. This preparation schedule avoids holding any food for a long time. Other terms that mean the same thing are *batch cooking* and *cooking to the line*.

Mise en Place (meez-un-plahss)

A French term used by chefs and other culinary professionals to describe all the different things that have to be done to get ready up to the point of cooking. Translated, it means *put in place*. It includes all the *get ready steps* in food preparation such as using the recipe to assemble the equipment needed and getting ingredients ready to combine.

Nutrients

The chemical substances found in food that nourish the body. There are six classes of nutrients: proteins, carbohydrates, fats, water, minerals, and vitamins.

Mise en Place

Getting Ready

Types of Bread

Loaf bread or Pullman is the most commonly used bread for sandwiches. The long, rectangular loaves provide slices from 3/8 inch to 5/8 inch thick. A fine textured, firm bread works well. Various types of loaf bread:

- White bread
- Whole wheat bread
- Rye
- Pumpernickel

Quick breads can be used for a sweeter tasting sandwich. Cream cheese and fruit are good fillings for sandwiches made from the following types of quick breads:

- Banana bread
- Zucchini bread
- Carrot bread

Wraps are very thin, flat breads that are used for sandwich wraps, burritos, and tacos. Varieties include:

- Corn tortilla
- Flour tortilla
- Sandwich wraps
 - Spinach
 - Sun-dried tomato
 - Whole wheat

Flat Breads are made from flattened, often unleavened breads and come from around the globe. Common flatbreads that are often used for sandwiches include:

- Pita bread
- Lavash
- Focaccia
- Chapati or Indian flatbread

Buns and **rolls** are excellent choices for sandwiches. A variety of types of buns can be used for sandwiches and include:

- Hamburger
- Hot dog
- English muffin

Vegetable Wraps

Meat/Meat Alternate-Vegetable-Grains/Breads

Sandwiches

F-09

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Enriched flour tortilla, 12" soft (at least 1.8 oz.)		50 each		100 each	1. Steam tortillas for 3 minutes until warm. OR Place in warmer to prevent torn tortillas when folding.
Ranch dressing (E-19)	50 oz	1 qt 2 ¼ cups	100 oz	3 qt ½ cup	2. For ranch dressing use Ranch Dressing recipe (see E-19) Spread 2 Tbsp ranch dressing down the center of each tortilla.
*Leaf lettuce	13 oz	1 qt 2 ¾ cups	1 lb 10 oz	3 qt 1 ½ cups	3. Place about ¼ oz lettuce on top of ranch dressing.
†Raw mixed vegetables * Raw green peppers, chopped * Raw onions, chopped * Raw carrots, peeled and sliced * Raw cucumbers, peeled and diced	1 lb 10 oz 1 lb 13 oz 1 lb 5 oz 1 lb 9 oz	1 qt ¾ cup 1 qt 1 cup 1 qt 1 cup 1 qt 1 cup	3 lb 4 oz 3 lb 10 oz 2 lb 10 oz 3 lb 2 oz	2 qt 1 ½ cups 2 qt 2 cups 2 qt 2 cups 2 qt 2 cups	4. Combine raw vegetables: green peppers, onions, carrots, and cucumbers. Portion 2 oz vegetable mix with a No. 10 scoop (¾ cup) on top of lettuce leaf and dressing.
Reduced fat Cheddar cheese, shredded	3 lb 2 oz	3 qt ½ cup	6 lb 4 oz	1 gal 2 ¼ qt	5. Sprinkle 1 oz (¼ cup) cheese on top of vegetables.
					6. Fold the top and bottom of the tortilla into the center. Beginning at either side, roll the tortilla until all the contents cannot be seen.
					7. Cut diagonally in half.

Comments:

*See Marketing Guide.

Marketing Guide for Selected Items		
Food as Purchased for	50 servings	100 servings
Leaf lettuce	1 lb 4 oz	2 lb 8 oz
Green peppers	2 lb 1 oz	4 lb 2 oz
Mature onions	2 lb 1 oz	4 lb 2 oz
Carrots	1 lb 10 oz	3 lb 4 oz
Cucumbers	1 lb 14 oz	3 lb 12 oz

Vegetable Wraps

Meat/Meat Alternate-Vegetable-Grains/Breads	Sandwiches	F-09
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SERVING:	YIELD:	VOLUME:
2 pieces provide 1 oz equivalent meat/meat alternate, ¾ cup of vegetable, and 2 servings of grains/breads.	50 Servings: about 19 lb	50 Servings: 1 gallon 7/8 quarts (vegetable filling) 100 halves
	100 Servings: about 38 lb	100 Servings: 2 gallons 1 ¾ quarts (vegetable filling) 200 halves

Tested 2004

Nutrients Per Serving			
Calories	299	Saturated Fat	4.72 g
Protein	13.80 g	Cholesterol	21 mg
Carbohydrate	36.52 g	Vitamin A	3707 IU
Total Fat	10.80 g	Vitamin C	16.5 mg
		Iron	2.04 mg
		Calcium	336 mg
		Sodium	636 mg
		Dietary Fiber	2.9 g

Quality Score Card for Sandwiches

Date: _____ Name of Menu Item: _____

Proudly Prepared by: _____

Quality Scored by: _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **N/A** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

QUALITY STANDARD	YES	NO	N/A	COMMENTS
APPEARANCE				
The proportion of sandwich filling to bread is balanced.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Vegetable accompaniments are attractive and not wilted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
If sandwich is toasted, the color of the bread is even and golden.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TEXTURE OR CONSISTENCY				
Sandwich bread is fresh.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Crumb is moist but not doughy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Vegetables, if used, are crisp.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FLAVOR AND SEASONING				
Flavors of the filling, spread, and accompaniments complement each other.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Bread is free from foreign flavors such as rancid fat or sour taste.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SERVICE TEMPERATURE				
Cold sandwiches: 34 °F–38 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Hot sandwiches: 160 °F–180 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	



Culinary Practice Score Card for Sandwiches

Name(s): _____

Purpose: The purpose of the activity is to practice Preparing Sandwiches.

Culinary Technique: Identify the culinary technique that you will use. Refer to the previous pages for a description of each technique.

Name of the Recipe: _____

Date for Production: _____

Directions: The manager and school nutrition assistant(s) will select a recipe for sandwiches that includes one of the culinary techniques described in this lesson. Check **YES** or **NO** when each step is completed. (This practice activity may be completed individually or with a partner. The manager will make this assignment at the end of the lesson.)

	YES	NO
Plan food production for just-in-time service.		
Did you plan food production for just-in-time service?	<input type="radio"/>	<input type="radio"/>
Review the Quality Score Card and the recipe.		
Did you review the recipe so you are familiar with the ingredients, equipment, and directions?	<input type="radio"/>	<input type="radio"/>
Did you review the Quality Score Card so you will know how the finished product should look and taste?	<input type="radio"/>	<input type="radio"/>
Organize equipment and ingredients.		
Did you assemble all the equipment needed?	<input type="radio"/>	<input type="radio"/>
Did you assemble all of the ingredients needed?	<input type="radio"/>	<input type="radio"/>
Use the right culinary technique.		
Did you use the culinary technique correctly?	<input type="radio"/>	<input type="radio"/>
Deliver a quality product.		
Did you use the Quality Score Card to evaluate the product?	<input type="radio"/>	<input type="radio"/>
Did you review the product with the manager?	<input type="radio"/>	<input type="radio"/>
Discuss the following questions with the manager before serving.		
How can the appearance of the food be improved?		
How can the flavor or taste of the food be improved?		
How can the texture and tenderness of the food be improved?		
How can the service temperature of the food be improved?		

The manager's signature indicates this practice has been completed satisfactorily. The manager should keep this on file or submit it to the central office to document the completion of the lesson.

Name of Manager: _____ **Date Signed:** _____





Participant's Workbook

Preparing Dry Beans and Peas

Time: 1 hour



National Food Service Management Institute
The University of Mississippi

Important Terms

Culinary

Relating to the kitchen or cooking. An example of use is to describe food preparation skills as culinary skills.

Culinary Technique

A step-by-step preparation method. The culinary techniques discussed in cooking dry beans and pea dishes.

Ethnic

A descriptive term relating to large groups of people classed according to common customs. Ethnic foods and recipes are those that are unique to a particular culture, such as Mexican, Italian, or Native American.

Just-In-Time Preparation

Preparing a menu item in small enough quantities so that it will be at its peak of quality when placed on the serving line. This preparation schedule avoids holding any food for a long time. Other terms that mean the same thing are *batch cooking* and *cooking to the line*.

Legume (leg-umes)

Seeds that grow in pods, including beans, peas, and lentils. When they are used fresh, they are treated as a vegetable.

Mise en Place (meez-un-plahss)

A French term used by chefs and other culinary professionals to describe all the different things that have to be done to get ready up to the point of cooking. Translated, it means *put in place*. It includes all the *get ready steps* in food preparation such as using the recipe to assemble the equipment needed and getting ingredients ready to combine.

Favorite Beans

Adzuki Beans	Small, oval, burgundy red with white stripes. Light, sweet, nutty flavor with firm texture. Used primarily for bean paste in Asia.
Baby or Small Lima Beans	Flat-shaped, creamy white-colored beans. Smooth, fruity, sweet flavor. Less mealy texture. Popular as a vegetable side dish or added to soups and casseroles.
Black Beans	Medium black-skinned ovals. Earthy, sweet flavor with a meaty texture. Often used in thick soups or with rice. The black bean is a basic ingredient of many Mexican, Caribbean, and Latin American soups and side dishes.
Black-eyed Peas	Medium size, oval shaped, with black dot on creamy skin. Distinct savory flavor and light smooth texture. Can be cooked without pre-soaking because they have thin skins. Popular in Southern cuisine and sometimes used with rice dishes such as Hoppin' John.
Cranberry Beans	Medium ovals with a creamy background and burgundy highlights. Full, rich flavor with meaty texture. Most often used in Italian bean dishes and soups.
Dark Red Kidney Beans	Large, kidney-shaped bean with a deep reddish-brown color. Robust full-bodied flavor and soft texture. Often used in chili and in salads and with rice.
Garbanzo Beans	Medium size, round bean, beige color. Nut-like flavor and firm texture. Also called chickpea. Most often used in soups, salads, and main ingredient in popular Middle Eastern dishes hummus and falafel.
Great Northern Beans	Medium size, white color, and oval shape. Mild flavor and powdery texture. Most often used in soups, stews, and cassoulet.
Large Lima Beans	Flat-shaped, creamy, white-colored beans. Smooth flavor and sweet taste. Popular as a vegetable side dish or added to soups and casseroles.
Light Red Kidney Beans	Large, kidney-shaped bean. Robust, full-bodied flavor, and soft texture. Most often used in chili, and are popular in salads and with rice.
Navy Beans	Small white ovals. Mild, delicate flavor and refined texture. Used in pork and beans, or baked beans, also used in soups and stews, and are great pureed.
Pinto Beans	Medium ovals, mottled beige, and brown color. Earthy flavor and powdery texture. Often used in refried beans, and are great for Tex-Mex and Mexican bean dishes.

Hummus

Meat/Meat Alternate

Salads and Salad Dressings

E-24

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Canned garbanzo beans or chickpeas, drained	8 lb 8 oz	5 qt 1 cup (2 No. 10 cans)	17 lb	2 gal 2 ½ qt (4 No. 10 cans)	1. Combine all ingredients in a food processor and puree to a smooth consistency.
Frozen lemon juice concentrate, reconstituted		¾ cups		1 qt 2 ½ cups	
Peanut butter	1 ½ lb	2 ½ cups	3 lb	1 qt 1 cup	2. Spread 5 lb ½ oz (approximately 3 qt 1 cup) into each shallow pan (12" x 20" x 2 ½") to a product depth of 2" or less. For 50 servings, use 2 pans. For 100 servings, use 4 pans.
OR		OR	OR	OR	
Tahini	1 ½ lb	2 ½ cups	3 lb	1 qt 1 cup	
OR		OR	OR	OR	3. CCP: Chill to 41° F or lower within 4 hours.
Sunflower seed butter	1 ½ lb	2 ½ cups	3 lb	1 qt 1 cup	
*Garlic cloves, peeled	5 oz	1 cup 1 Tbsp	10 oz	2 cups 2 Tbsp	Cover. Refrigerate until service.
Water		¾ cup		1 qt 2 ½ cups	
Ground black or white pepper		1 Tbsp		2 Tbsp	4. Portion with No. 8 scoop (½ cup).

Comments:

*See Marketing Guide.

Marketing Guide for Selected Items		
Food as Purchased for	50 Servings	100 Servings
Garlic	17 cloves	34 cloves

SERVING:	YIELD:		VOLUME:	
	50 Servings:	about 13 lb 9 oz	50 Servings:	about 1 gallon 2 ¼ quarts 2 pans
½ cup (No. 8 scoop) provides 2 oz equivalent meat/meat alternate.	100 Servings:	about 27 lb 2 oz	100 Servings:	about 3 gallons 2 cups 4 pans

Tested 2006

Hummus

Meat/Meat Alternate

Salads and Salad Dressings

E-24

Special Tip:
Serve with pita bread; warming for service - contains peanut butter.

Nutrients Per Serving			
Calories	182	Saturated Fat	1.44 g
Protein	7.49 g	Cholesterol	0 mg
Carbohydrate	22.37 g	Vitamin A	21 IU
Total Fat	7.90 g	Vitamin C	7.7 mg
		Iron	1.38 mg
		Calcium	37 mg
		Sodium	301 mg
		Dietary Fiber	4.4 g

Quality Score Card for Dry Beans and Peas

Date: _____ Name of Menu Item: _____

Proudly Prepared by: _____

Quality Scored by: _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **N/A** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

QUALITY STANDARD	YES	NO	N/A	COMMENTS
APPEARANCE				
Product appears moist, but not watery.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Beans or peas retain their shape.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
No oil or fat is visible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TEXTURE OR CONSISTENCY				
Product has a soft texture.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product is moist, not dry.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product gives little resistance to bite.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FLAVOR AND SEASONING				
Flavor is distinctive for the specific beans or peas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product is free from a scorched or burned taste.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Seasonings are well blended.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SERVICE TEMPERATURE				
160 °F–180 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	



Culinary Practice Score Card for Dry Beans and Peas

Name(s): _____

Purpose: The purpose of the activity is to practice Preparing Dry Beans and Peas.

Culinary Technique: Identify the culinary technique that you will use. Refer to the previous pages for a description of each technique.

Name of the Recipe: _____

Date for Production: _____

Directions: The manager and school nutrition assistant(s) will select a recipe for dry beans or peas that includes one of the culinary techniques described in this lesson. Check **YES** or **NO** when each step is completed. (This practice activity may be completed individually or with a partner. The manager will make this assignment at the end of the lesson.)

	YES	NO
Plan food production for just-in-time service.		
Did you plan food production for just-in-time service?	<input type="radio"/>	<input type="radio"/>
Review the Quality Score Card and the recipe.		
Did you review the recipe so you are familiar with the ingredients, equipment, and directions?	<input type="radio"/>	<input type="radio"/>
Did you review the Quality Score Card so you will know how the finished product should look and taste?	<input type="radio"/>	<input type="radio"/>
Organize equipment and ingredients.		
Did you assemble all the equipment needed?	<input type="radio"/>	<input type="radio"/>
Did you assemble all of the ingredients needed?	<input type="radio"/>	<input type="radio"/>
Use the right culinary technique.		
Did you use the culinary technique correctly?	<input type="radio"/>	<input type="radio"/>
Deliver a quality product.		
Did you use the Quality Score Card to evaluate the product?	<input type="radio"/>	<input type="radio"/>
Did you review the product with the manager?	<input type="radio"/>	<input type="radio"/>
Discuss the following questions with the manager before serving.		
How can the appearance of the food be improved?		
How can the flavor or taste of the food be improved?		
How can the texture and tenderness of the food be improved?		
How can the service temperature of the food be improved?		

The manager's signature indicates this practice has been completed satisfactorily. The manager should keep this on file or submit it to the central office to document the completion of the lesson.

Name of Manager: _____ Date Signed: _____





Participant's Workbook

Preparing Pasta, Rice, and Grains

Time: 1 hour



National Food Service Management Institute
The University of Mississippi



Important Terms

Al Dente (al-din-tay)

An Italian term that means “to the tooth”. It is used to describe pasta cooked to a firm texture.

Culinary

Relating to the kitchen or cooking. An example of use is to describe food preparation skills as culinary skills.

Culinary Technique

A step-by-step preparation method. The culinary techniques discussed in this lesson include boiling pasta, cooking rice, and simmering grains.

Just-In-Time Preparation

Preparing a menu item in small enough quantities so that it will be at its peak of quality when placed on the serving line. This preparation schedule avoids holding any food for a long time. Other terms that mean the same thing are *batch cooking* and *cooking to the line*.

Mise en Place (meez-un-plahss)

A French term used by chefs and other culinary professionals to describe all the different things that have to be done to get ready up to the point of cooking. Translated, it means *put in place*. It includes all the *get ready steps* in food preparation such as using the recipe to assemble the equipment needed and getting ingredients ready to combine.

Nutrients

The substances found in food that nourish the body. There are six classes of nutrients: proteins, carbohydrates, fats, water, minerals, and vitamins.

Simmer

To cook a food in a liquid just below the boiling point.

Mise en Place

Getting Ready

Common whole grains:

- Any grain with “whole” listed before the grain (whole-grain corn or whole cornmeal, whole bulgur, whole oat flour, whole rye flour, whole wheat flour, white whole wheat flour, whole durum flour, whole-grain barley, whole rye)
- Various grains with “groats” listed after the grain (oat groats, buckwheat groats)
- Various grains with “berries” listed after the grain (wheat berries, rye berries)
- Cracked wheat
- Crushed wheat
- Graham flour
- Oatmeal or rolled oats (regular, quick, or instant)
- Brown rice (regular or quick), brown rice flour, wild rice
- Popcorn (is not creditable in food-based menu planning.)

Some less commonly used whole grains:

- Whole amaranth
- Whole buckwheat
- Whole millet
- Whole quinoa
- Whole sorghum
- Whole spelt
- Whole teff
- Whole triticale

Cooking Chart for Various Pasta Shapes

Pasta Name	Shape of Pasta	Approximate Cooking Time for al dente
Lasagna		15 Minutes
Bow ties		11 minutes
Wagon wheels		11 minutes
Linguine		10 minutes
Rigatoni		10 minutes
Spaghetti		10 minutes
Ziti		10 minutes
Fettuccine		8 minutes
Rotini		8 minutes
Elbow macaroni		6 minutes
Noodles		6 minutes

Source: Adapted from Molt, M. (2006), *Food For Fifty* (p. 561). Pearson, Prentice-Hall: Upper Saddle River, NJ.



Basic Principles of Preparing Grains

There are many other kinds of grain dishes that can be included on school menus. Grain dish examples are bulgur or cracked wheat, buckwheat or kasha, and oatmeal. Of course, corn, cornmeal, and grits are also from the grain group. Grain dishes may be served at any meal and are often important ingredients in soups, main dishes, side dishes, and even desserts. When any grain is cooked, three things should happen:

1. The plant fiber becomes soft so it can be eaten.
2. The grain product keeps its shape and doesn't become a paste.
3. The starch in the grain product is changed so it can be digested.

Follow the directions in the recipe to cook the grain product the right way.

Grain products (or cereals) can be cooked in a steam-jacketed kettle or a steamer. They can even be prepared in a heavy kettle on the range. Simmering is the most popular culinary technique for cooking grains.

A grain product should not be stirred too much and should not be overcooked. Either action means that the product will be sticky and gummy. Recipes for grain products include the amount of liquid to be used and the cooking time. Following the recipe exactly means the product will be done and will meet quality standards.

In general, grain products are done when almost all the liquid has been absorbed. Some recipes suggest that the grain product be removed from the heat when almost all the liquid has been absorbed, and then left to stand covered for 5–10 minutes. Standing allows time for the remaining liquid to be absorbed.

Like rice, the liquid used to cook other grains can be chicken, beef, or vegetable stock flavored with herbs or spices or vegetables. Use a recipe and follow it exactly. The most common culinary technique used to cook grains is simmering.



Cooking Chart for Varieties of Rice

Variety	Description	Approximate Cooking Time (Actual cooking times vary with the culinary technique used.)
Brown Rice	Least processed form of rice; contains bran and inner germ layer; available as short, medium, long grain varieties, or parboiled; may be enriched	50-60 minutes
White Rice, long-grain	Polished grains, usually enriched; cooks up firm and fluffy	25-30 minutes
White Rice, medium-grain	Polished grains, usually enriched; cooks up tender and moist with grains tending to stick together	25-30 minutes
White Rice, Short-grain	Polished grains, usually enriched; cooks up very tender and sticky; good for sushi and rice pudding; high starch content	25-30 minutes
Converted Rice	Parboiled to remove the surface starch, polished grains; may be enriched; cooks more slowly than regular milled white rice; holds well after cooking	30-40 minutes
Italian Short-Grain Rice	Short grains, polished; an example is Arborio which is very sticky, with a white color and mild flavor; used for risotto	15-20 minutes
Wild Rice	Long, dark-brown seed that is prepared in the same way as rice; has a nuttier flavor and chewier texture than traditional rice; should be rinsed	35-60 minutes



Various Grains Chart

Grain	Description	Forms
Barley	Sweet, earthy flavor Chewy-to-soft texture Used in soups, sides	Pot or scotch: unpolished kernels Pearl: polished kernels
Corn	Grain food that is eaten as both vegetable and grain	Hominy: hulled and degerminated kernels Grits: ground hominy Meal: medium-fine ground hulled kernels Masa: processed with lime to remove hull Masa harina: ground dried masa Cornstarch: very finely ground hulled, degerminated kernels
Millet	Usually cooked like rice May be added to bread for a crunchy texture	Whole: cooked like rice Flour: used in flat breads
Oats	Used as a hot cereal or in baked products	Rolled or old-fashioned oats: whole oat kernels with only husks removed Quick-cooking oats: rolled oats cut into smaller pieces for quicker cooking Instant oats: partially cooked and dried before rolling
Quinoa	Seed of a plant but not botanically a grain	Whole seeds
Rye	Used primarily as a flour for making bread	Rye berries Cracked rye: Rye flour
Wheat	Widely used in many products	Whole: whole kernel without the bran removed Cracked: whole kernel without the bran removed and coarsely crushed Bulgur: whole wheat kernel that has bran removed Semolina: polished wheat kernel with the bran and germ removed Couscous: semolina pellets, often parcooked Farina: polished, medium-grind wheat cereal Bran: separated outer covering of wheat kernel; flakes Germ: separated embryo of wheat kernels



Pasta Salad

Vegetable-Grains/Breads

Salads and Salad Dressings

E-08

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Water		1 gal 1 ½ qt		2 gal 3 qt	1. Heat water to rolling boil. Add salt.
Salt		2 Tbsp		¼ cup	
Enriched pasta spirals OR	1 lb 11 oz OR	2 qt 1 ¼ cups OR	3 lb 6 oz OR	1 gal 2 ½ cups OR	2. Slowly add pasta spirals or shells while stirring constantly until water boils again. Cook for 8-10 minutes. DO NOT OVERCOOK. Drain well. Rinse under cold water.
Enriched pasta shells, medium	1 lb 15 oz	2 qt ¾ cups	3 lb 14 oz	1 gal 1 ½ qt	
Frozen mixed vegetables, thawed and drained OR	2 lb 4 oz OR	1 qt 1 ½ cups OR	4 lb 8 oz OR	2 qt 3 cups OR	3. Add mixed vegetables, broccoli, and pepper. Shake dressing. Pour over pasta and vegetables. Toss lightly to combine and coat evenly. Spread 5 lb 1 oz (approximately 2 qt 1 ½ cups) into each shallow pan (12" x 20" x 2 ½") to a product depth of 2" or less. For 50 servings, use 2 pans. For 100 servings, use 4 pans.
Canned mixed vegetables, chilled, drained	2 lb 9 oz	1 qt 1 ¼ cups (½ No. 10 can)	5 lb 2 oz	2 qt 3 ½ cups (1 ½ No. 10 cans)	
Frozen chopped broccoli, thawed and drained	1 lb 7 oz	3 ½ cups	2 lb 14 oz	1 qt 3 cups	
Ground black or white pepper		1 tsp		2 tsp	
Italian Dressing (see E-15)		2 cups		1 qt	
					4. CCP: Cool to 41° F or lower within 4 hours. Cover. Refrigerate until ready to serve.
					5. Mix lightly before serving.
					6. Portion with No. 10 scoop (¾ cup).

SERVING:	YIELD:		VOLUME:	
	Weight	Measure	Weight	Measure
¾ cup (No. 10 scoop) provides ½ cup of vegetable and ½ serving of grains/breads.				
	50 Servings:	about 10 lb 2 oz	50 Servings:	about 1 gallon 2 ¾ cups 2 pans
	100 Servings:	about 20 lb 4 oz	100 Servings:	about 2 gallons 1 ½ quarts 4 pans

Edited 2006



Vegetable-Grains/Breads

Salads and Salad Dressings

E-08

Nutrients Per Serving		
Calories	141	
Protein	3.27 g	Iron
Carbohydrate	16.83 g	Calcium
		Sodium
Total Fat	7.00 g	Dietary Fiber
		0.98 mg
		17 mg
		165 mg
		2.03 g

Cooking Rice (Oven or Steamer)

Grains/Breads	Grains/Breads	B-03
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Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Enriched white rice, medium grain, regular OR Enriched white rice, long grain, regular OR Enriched white rice, long grain, parboiled	3 lb 12 oz OR 3 lb 6 oz OR 3 lb 10 oz	2 qt ½ cup OR 2 qt OR 2 qt 1 ¼ cups	7 lb 8 oz OR 6 lb 12 oz OR 7 lb 4 oz	1 gal 1 cup OR 1 gal OR 1 gal 2 ½ cups	1. Do not rinse enriched rice. 2. Place 1 lb 14 oz medium grain, or 1 lb 11 oz long grain, or 1 lb 13 oz par-boiled rice in each steamtable pan (12" x 20" x 2 ½"). For 50 servings, use 2 pans. For 100 servings, use 4 pans.
Water, boiling	3 qt			1 gal 2 qt	3. Add salt to boiling water. Pour water over rice. (1 qt 2 cups per steamtable pan).
Salt	2 tsp			1 Tbsp 1 tsp	4. Cover pans tightly.
					5. Bake: Conventional oven: 350° F for 30 minutes Convection oven: 325° F for 30 minutes Steamer: 5 lb pressure for 25 minutes
					6. Remove from oven or steamer.
					7. CCP: Hold for hot service at 135° F or higher. OR CCP: Cool to 70° F within 2 hours and from 70° F to 41° F or lower within an additional 4 hours. Portion with No. 8 scoop (½ cup).

SERVING:	YIELD:	VOLUME:
½ cup (No. 8 scoop) provides 1 serving of grains/breads.	50 Servings: 2 steamtable pans	50 Servings: about 1 gallons 2 ¼ quarts
	100 Servings: 4 steamtable pans	100 Servings: about 3 gallons 2 cups

Tested 2004, Tested 2007

Cooking Rice (Oven or Steamer)

Grains/Breads	Grains/Breads	B-03
<p>Special Tip: Cooking Brown Rice, long grain, regular</p> <p>For 50 Servings, use 3 lb 2 oz brown rice and 1 gal 3 ½ cups boiling water and 2 tsp salt. Place 1 lb 9 oz of rice and 2 qt 1 ¾ cups of water in each steamtable pan (12" x 20" x 2 ½"). Use 2 pans. Cover and bake at 350° F or steam at 5 lb pressure for 50 minutes.</p> <p>For 100 servings, use 6 lb 4 oz brown rice and 2 gal 1 ¾ qt boiling water and 1 Tbsp 1 tsp salt. Place 1 lb 9 oz of rice and 2 qt 1 ¾ cups of water in each steamtable pan (12" x 20" x 2 ½"). Use 4 pans. Cover and bake at 350° F or steam at 5 lb pressure for 50 minutes.</p>		

Quality Score Card for Pasta, Rice, and Grains

Date: _____ Name of Menu Item: _____

Proudly Prepared by: _____

Quality Scored by: _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **N/A** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

QUALITY STANDARD	YES	NO	N/A	COMMENTS
APPEARANCE				
Pasta strands or pieces are distinct.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Rice grains are intact (still whole).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Grains/cereals have distinct particles, grains, or flakes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product is moist but not watery.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
No oil or fat is visible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TEXTURE OR CONSISTENCY				
Pasta pieces are tender (<i>al dente</i>) but not gummy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Rice/grains are firm, but tender, fluffy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Cereal is thick but not gummy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product does not have lumps.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FLAVOR AND SEASONING				
Flavor is bland, but does not taste starchy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Flavor is typical of the grain.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product is free from a scorched or burned taste.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
A mixed dish is well seasoned but not to excess.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SERVICE TEMPERATURE				
Hot pasta, rice, and grain dishes – 160 °F–180 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Cold pasta, rice, or grain salads – 34 °F–38 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	



Culinary Practice Score Card for Pasta, Rice, and Grains

Name(s): _____

Purpose: The purpose of the activity is to practice Preparing Pasta, Rice, and Grains.

Culinary Technique: Identify the culinary technique that you will use. Refer to the previous pages for a description of each technique.

Name of the Recipe: _____

Date for Production: _____

Directions: The manager and school nutrition assistant(s) will select a recipe for pasta, rice, or grains that includes one of the culinary techniques described in this lesson. Check **YES** or **NO** when each step is completed. (This practice activity may be completed individually or with a partner. The manager will make this assignment at the end of the lesson.)

	YES	NO
Plan food production for just-in-time service.		
Did you plan food production for just-in-time service?	<input type="radio"/>	<input type="radio"/>
Review the Quality Score Card and the recipe.		
Did you review the recipe so you are familiar with the ingredients, equipment, and directions?	<input type="radio"/>	<input type="radio"/>
Did you review the Quality Score Card so you will know how the finished product should look and taste?	<input type="radio"/>	<input type="radio"/>
Organize equipment and ingredients.		
Did you assemble all the equipment needed?	<input type="radio"/>	<input type="radio"/>
Did you assemble all of the ingredients needed?	<input type="radio"/>	<input type="radio"/>
Use the right culinary technique.		
Did you use the culinary technique correctly?	<input type="radio"/>	<input type="radio"/>
Deliver a quality product.		
Did you use the Quality Score Card to evaluate the product?	<input type="radio"/>	<input type="radio"/>
Did you review the product with the manager?	<input type="radio"/>	<input type="radio"/>
Discuss the following questions with the manager before serving.		
How can the appearance of the food be improved?		
How can the flavor or taste of the food be improved?		
How can the texture and tenderness of the food be improved?		
How can the service temperature of the food be improved?		

The manager's signature indicates this practice has been completed satisfactorily. The manager should keep this on file or submit it to the central office to document the completion of the lesson.

Name of Manager: _____ Date Signed: _____





Participant's Workbook

Preparing Soups

Time: 1 hour



National Food Service Management Institute
The University of Mississippi



Important Terms

Broth

A flavorful, aromatic liquid made by simmering water or stock with meat, vegetables, and/or spices and herbs.

Culinary

Relating to the kitchen or cooking. An example of use is to describe food preparation skills as culinary skills.

Culinary Technique

A step-by-step food preparation method.

Just-In-Time Preparation

Preparing a menu item in small enough amounts so that it will be at its peak of quality when placed on the service line. This preparation schedule avoids holding any food for a long time. Other terms that mean the same thing are *batch cooking* and *cooking to the line*.

Mise en Place (meez-un-plahss)

A French term used by chefs and other culinary professionals to describe all the different things that have to be done to get ready up to the point of cooking. Translated, it means *put in place*. It includes all the *get ready steps* in food preparation such as using the recipe to assemble the equipment needed and getting ingredients ready to combine.

Nutrients

The chemical substances found in food that nourish the body. There are six classes of nutrients: proteins, carbohydrates, fats, water, minerals, and vitamins.

Simmer

To cook a food in a liquid just below the boiling point.

Stock

A flavorful liquid prepared by simmering meat, poultry, fish, and/or vegetables in water until the flavor is extracted.



Mis en Place

How to Make a Stock

There are some important things to do when making a stock. The ideal time to make a stock is when whole turkeys or other whole meats are on the menu. The meat is removed and the bones cooked with vegetables and seasonings to make a stock.

White Stock

Chicken or Turkey Stock
(1 Gallon)

Approximately 8 pounds of bones
(turkey or chicken)
8 ounces onions, chopped
4 ounces celery, chopped

4 ounces carrots, chopped
Cover with 6 quarts of cold water.
Do not add salt to the stock.

Bring the raw bones and liquid to a boil and reduce the heat so the liquid is at simmer (do not boil). After about 1 hour, add the vegetables and cook until the liquid is reduced by one-third. This will take about 3 hours. Skim the stock as needed during the cooking time.

After the stock is ready, it should be strained to separate all the solids, the bones, and vegetables from the liquid.

Remove the stock from the heat. Using a ladle, carefully ladle the stock from the pot and strain it through a very fine strainer. The strainer should be fine enough that no solids are strained through and the liquid is clear. Use the best tool available for straining stock. Some tools that can be used include a fine mesh-type strainer, a small hand-held colander, a china cap, cheesecloth, or a large coffee filter in a colander.

After the stock has been strained, cool it quickly in shallow pans in the refrigerator or place in an ice water bath. Stir the stock periodically during the cooling process. When the stock is completely chilled (41 °F or less), remove any fat that is on the top.

Storing Stocks

Stock is a clear, flavored liquid that freezes well. Chilled stock can be frozen in 1 gallon amounts to be used for sauces. However, once a stock has been used to make a sauce, the sauce itself should not be frozen. Sauces do not freeze well and should be made in amounts needed the day of production.

Starting Stocks in Cold Water

By starting with cold water, the entire mixture heats at the same time. The impurities from the bones collect on top of the water and can easily be skimmed off. If hot water is added to the bones, the impurities will coagulate and stay in the water making the stock cloudy.

Mis en Place, continued

Simmer Stocks

Simmering is cooking just below the boiling point, approximately 185 °F. At this temperature, the bones release their flavor into the liquid. When a stock is boiled, the impurities and the fat mix in with the water and the stock becomes cloudy.

Skim the Stock

A good stock is clear, like a commercial stock base mixed with water to make a broth. Skimming frequently during cooking removes impurities and fat that rise to the top so the stock remains clear.

Flavored Commercial Stock Bases

Broths made from commercial chicken stock base, beef stock base, and vegetable stock base are all popular substitutes for school-made stock. Although they save labor costs, a commercial stock base never gives as good a flavor as a school-made stock.

Regular commercial stock bases are high in sodium, and for that reason their use should be limited in school kitchens. It is always important to choose ingredients that are consistent with the principles of the *Dietary Guidelines for Americans*. Substitute a low-sodium for a regular commercial stock base.

Using Commercial Stock Bases

1. Reduce the amount of regular commercial stock base and use only half to three quarters as much as recommended in the directions. Use the amount of water recommended. If low-sodium stock base is available, follow the directions and use it full-strength.
2. Make the sauce using water as the liquid. Then at the end add only enough stock base to get the flavor needed. Begin with half the amount recommended. Add the stock base and then taste test for flavor. Use the least amount of regular stock base needed for flavor.
3. Do not add additional salt or use flavorings such as onion salt or garlic salt.

Vegetable Soup

Vegetable

Soups

H-04

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Chicken or beef stock, non-MSG		2 gal	4 gal		1. Combine stock, tomatoes, celery, onions, pepper, parsley, and granulated garlic. Bring to boil.
Canned diced tomatoes, with juice	6 lb 6 oz	3 qt $\frac{1}{2}$ cup (1 No. 10 can)	12 lb 12 oz	1 gal $2\frac{1}{4}$ qt (2 No. 10 cans)	
*Fresh celery, chopped	10 oz	2 $\frac{1}{2}$ cups	1 lb 4 oz	1 qt 1 cup	
*Fresh onions, chopped OR Dehydrated onions	1 lb OR 3 oz	2 $\frac{3}{4}$ cups OR 1 $\frac{1}{2}$ cups	2 lb OR 6 oz	1 qt $1\frac{1}{2}$ cups OR 3 cups	
Ground black or white pepper		1 tsp		2 tsp	
Dried parsley		$\frac{1}{4}$ cup		$\frac{1}{2}$ cup	
Granulated garlic		2 Tbsp		$\frac{1}{4}$ cup	
Canned liquid pack whole-kernel corn, drained OR Frozen whole-kernel corn	1 lb $2\frac{1}{2}$ oz OR 1 lb 2 oz	2 $\frac{3}{4}$ cups ($\frac{1}{4}$ No. 10 can) OR 3 cups 2 Tbsp	2 lb 5 oz OR 2 lb 4 oz	1 qt $1\frac{1}{2}$ cups ($\frac{1}{2}$ No. 10 can) OR 1 qt $2\frac{1}{4}$ cups	2. Reduce heat and cover. Simmer for 20 minutes. 3. Add corn, carrots, green beans, and green peas. (Frozen vegetables may be combined with canned vegetables.)
Canned diced carrots, drained OR Frozen sliced carrots	1 lb 2 oz OR 1 lb 6 oz	2 $\frac{1}{2}$ cups ($\frac{1}{4}$ No. 10 can) OR 1 qt $\frac{3}{4}$ cup	2 lb 4 oz OR 2 lb 12 oz	1 qt 1 cup ($\frac{1}{2}$ No. 10 can) OR 2 qt $1\frac{1}{2}$ cups	
Canned cut green beans, drained OR Frozen cut green beans	15 oz OR 15 oz	3 $\frac{1}{2}$ cups ($\frac{1}{4}$ No. 10 can) OR 3 $\frac{1}{2}$ cups	1 lb 14 oz OR 1 lb 14 oz	1 qt 3 cups ($\frac{1}{2}$ No. 10 can) OR 1 qt 3 cups	
Canned green peas, drained OR Frozen green peas	1 lb $1\frac{1}{2}$ oz OR 1 lb 4 oz	2 $\frac{1}{2}$ cups ($\frac{1}{4}$ No. 10 can) OR 1 qt	2 lb 3 oz OR 2 lb 8 oz	1 qt 1 cup ($\frac{1}{2}$ No. 10 can) OR 2 qt	4. Cover and simmer for 15 minutes, or until vegetables are tender. CCP: Heat to 165° F or higher for at least 15 seconds. 5. Pour 9 lb $1\frac{1}{4}$ oz (1 gal $\frac{3}{4}$ cup) into medium steamtable pan (12" x 20" x 4"). For 50 servings, use 3 pans. For 100 servings, use 6 pans.

Vegetable Soup

Vegetable	Soups	H-04
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6. CCP: Hold for hot service at 135° F or higher.
Portion with 8 oz ladle (1 cup).

Comments:
*See Marketing Guide.

Marketing Guide for Selected Items		
Food as Purchased for	50 Servings	100 Servings
Celery	12 oz	1 lb 8 oz
Mature onions	1 lb 3 oz	2 lb 6 oz

SERVING:	YIELD:	VOLUME:
1 cup (8 oz ladle) provides ½ cup of vegetable.	50 Servings: about 27 lb 4 oz	50 Servings: about 3 gallons 2 cups

100 Servings: about 54 lb 8 oz **100 Servings:** about 6 gallons 1 quart

Tested 2004

Nutrients Per Serving			
Calories	58	Saturated Fat	0.12 g
Protein	3.24 g	Cholesterol	1 mg
Carbohydrate	11.52 g	Vitamin A	1906 IU
Total Fat	0.63 g	Vitamin C	13.3 mg
		Iron	1.08 mg
		Calcium	29 mg
		Sodium	369 mg
		Dietary Fiber	1.8 g

Bean Soup

Meat/Meat Alternate-Vegetable

Soups

H-01

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Chicken or ham stock, non-MSG		2 gal 1 qt		4 gal 2 qt	1. Combine stock, beans, tomato paste, onions, celery, carrots, pepper, parsley, and ham (optional). Bring to boil. (If desired, liquid from cooked beans may be used as part of the stock.)
*Cooked dry Navy beans (see Special Tip)	10 lb 2 oz	1 gal 2 ½ qt	20 lb 4 oz	3 gal 1 qt	
Canned tomato paste	7 oz	¾ cup 1 Tbsp	14 oz	1 ½ cups 2 Tbsp	
*Fresh onions, chopped OR	14 oz OR	2 ½ cups OR	1 lb 12 oz OR	1 qt ¾ cup OR	
Dehydrated onions	2 ½ oz	1 ¼ cups	5 oz	2 ½ cups	
*Fresh celery, chopped	6 ½ oz	1 ½ cups 2 Tbsp	13 oz	3 ¼ cups	
*Fresh carrots, chopped	6 ½ oz	1 ¾ cups	13 oz	3 ½ cups	
Ground black or white pepper		1 tsp		2 tsp	
Dried parsley		¼ cup		½ cup	
Cooked ham, diced (optional)	1 lb	3 cups	2 lb	1 qt 2 cups	2. Reduce heat. Cover. Simmer for 20 minutes or until vegetables are tender. CCP: Heat to 165° F or higher for at least 15 seconds.
Enriched all-purpose flour	4 ½ oz	1 cup 1 Tbsp	9 oz	2 cups 2 Tbsp	3. Combine flour and water. Mix until smooth.
Water		1 cup		2 cups	4. Add to stock mixture. Stir well and cook over medium heat until thickened, 10-12 minutes.
					5. Pour 8 lb 7 ¼ oz (1 gal ¾ cup) into a medium steamtable pan (12" x 20" x 4"). For 50 servings, use 3 pans. For 100 servings, use 6 pans. CCP: Hold for hot service at 135° F or higher.
					6. Portion with 8 oz ladle (1 cup).

Comments:

*See Marketing Guide.

Marketing Guide for Selected Items

Food as Purchased for 50 Servings 100 Servings

Dry Navy beans

4 lb 4 oz

8 lb 8 oz

Mature onions

1 lb

2 lb

Bean Soup

Meat/Meat Alternate-Vegetable	Soups	H-01
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Celery	8 oz	1 lb
Carrots	8 oz	1 lb

SERVING:	YIELD:	VOLUME:
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1 cup (8 oz ladle) provides 2 oz equivalent meat/meat alternate and 1/4 cup of vegetable.

50 Servings: about 25 lb 6 oz **50 Servings:** about 3 gallons 2 cups

100 Servings: about 50 lb 12 oz **100 Servings:** about 6 gallons 1 quart

Edited 2004

Special Tip: SOAKING BEANS

Overnight method: Add 1 3/4 qt cold water to every 1 lb of dry beans. Cover and refrigerate overnight. Discard the water. Proceed with recipe.

Quick-soak method: Boil 1 3/4 qt of water for each 1 lb of dry beans. Add beans and boil for 2 minutes. Remove from heat and allow to soak for 1 hour. Discard the water. Proceed with recipe.

COOKING BEANS

Once the beans have been soaked, add 1/2 tsp salt for every lb of dry beans. Boil gently with lid tilted until tender, about 2 hours.

Use hot beans immediately.
CCP: Hold for hot service at 135° F.

OR

Chill for later use. If chilling:
CCP: Cool to 70° F within 2 hours and to 41° F or lower within an additional 4 hours.

1 lb dry Navy beans = about 2 1/4 cups dry or 5 7/8 cups cooked beans.

Bean Soup

Meat/Meat Alternate-Vegetable

Soups

H-01

Nutrients Per Serving			
Calories	159	Saturated Fat	0.22 g
Protein	9.28 g	Cholesterol	1 mg
Carbohydrate	29.37 g	Vitamin A	1073 IU
Total Fat	0.88 g	Vitamin C	4.4 mg
		Iron	2.66 mg
		Calcium	79 mg
		Sodium	329 mg
		Dietary Fiber	6.4 g



Quality Score Card for Soups

Date: _____ Name of Menu Item: _____

Proudly Prepared by: _____

Quality Scored by: _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **N/A** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

QUALITY STANDARD	YES	NO	N/A	COMMENTS
APPEARANCE				
Ingredients do not appear overcooked.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
There is no visible fat or scum.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Color is consistent with the main ingredients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TEXTURE OR CONSISTENCY				
Thickness is appropriate for type of soup.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Added ingredients are fork-tender.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FLAVOR AND SEASONING				
Seasonings are balanced with no one additive predominant (salt is not an obvious taste).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
If a thickener is used, it has been thoroughly cooked so there is no starchy taste.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
If a thickener is used, it has been thoroughly cooked so there is no starchy taste.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
The ingredients of the soup compliment each other.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SERVICE TEMPERATURE				
160 °F–170 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	



Culinary Practice Score Card for Soups

Name(s): _____

Purpose: The purpose of the activity is to practice Preparing Soups.

Culinary Technique: Identify the culinary technique that you will use. Refer to the previous pages for a description of each technique.

Name of the Recipe: _____

Date for Production: _____

Directions: The manager and school nutrition assistant(s) will select a recipe for soups that includes one of the culinary techniques described in this lesson. Check **YES** or **NO** when each step is completed. (This practice activity may be completed individually or with a partner. The manager will make this assignment at the end of the lesson.)

	YES	NO
Plan food production for just-in-time service.		
Did you plan food production for just-in-time service?	<input type="radio"/>	<input type="radio"/>
Review the Quality Score Card and the recipe.		
Did you review the recipe so you are familiar with the ingredients, equipment, and directions?	<input type="radio"/>	<input type="radio"/>
Did you review the Quality Score Card so you will know how the finished product should look and taste?	<input type="radio"/>	<input type="radio"/>
Organize equipment and ingredients.		
Did you assemble all the equipment needed?	<input type="radio"/>	<input type="radio"/>
Did you assemble all of the ingredients needed?	<input type="radio"/>	<input type="radio"/>
Use the right culinary technique.		
Did you use the culinary technique correctly?	<input type="radio"/>	<input type="radio"/>
Deliver a quality product.		
Did you use the Quality Score Card to evaluate the product?	<input type="radio"/>	<input type="radio"/>
Did you review the product with the manager?	<input type="radio"/>	<input type="radio"/>
Discuss the following questions with the manager before serving.		
How can the appearance of the food be improved?		
How can the flavor or taste of the food be improved?		
How can the texture and tenderness of the food be improved?		
How can the service temperature of the food be improved?		

The manager's signature indicates this practice has been completed satisfactorily. The manager should keep this on file or submit it to the central office to document the completion of the lesson.

Name of Manager: _____ Date Signed: _____





Participant's Workbook

Preparing Dairy Products

Time: 1 hour



National Food Service Management Institute
The University of Mississippi



Important Terms

Culinary

Relating to the kitchen or cooking. An example of use is to describe food preparation skills as culinary skills.

Culinary Technique

A step-by-step food preparation method. The culinary techniques discussed in this lesson include cooking cheese.

Just-In-Time Preparation

Preparing a menu item in small enough amounts so that it will be at its peak of quality when placed on the service line. This preparation schedule avoids holding any food for a long time. Other terms that mean the same thing are *batch cooking* and *cooking to the line*.

Mise en Place (meez-un-plahss)

A French term used by chefs and other culinary professionals to describe all the different things that have to be done to get ready up to the point of cooking. Translated, it means *put in place*. It includes all the *get ready steps* in food preparation such as using the recipe to assemble the equipment needed and getting ingredients ready to combine.

Pizza with Cheese Topping

Meat/Meat Alternate-Vegetable-Grains/Breads

Main Dishes

D-30

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Pizza dough in pans (18" x 26" x 1") OR (18" x 13" x 1")		2 ½ sheet pans		5 sheet pans	1. For pizza dough, use Pizza Crust recipe (see B-14) or Pourable Pizza Crust recipe (see B-15).
*Fresh onions, chopped OR Dehydrated onions	5 oz OR 1 oz	¾ cup 2 Tbsp OR ½ cup	10 oz OR 2 oz	1 ¾ cups OR 1 cup	2. Combine onions, granulated garlic, pepper, tomato paste, water, salt, basil, oregano, marjoram, and thyme. Simmer for 15 minutes.
Granulated garlic		2 ½ tsp		1 Tbsp 2 tsp	
Ground black or white pepper		1 tsp		2 tsp	
Canned tomato paste	1 lb 12 oz	3 cups 2 Tbsp (¼ No. 10 can)	3 lb 8 oz	1 qt 2 ¼ cups (½ No. 10 can)	
Water		1 qt 3 cups		3 qt 2 cups	
Salt		2 tsp		1 Tbsp 1 tsp	
Dried basil		2 tsp		1 Tbsp 1 tsp	
Dried oregano		2 tsp		1 Tbsp 1 tsp	
Dried marjoram		½ tsp		1 tsp	
Dried thyme		½ tsp		1 tsp	
Lite mozzarella cheese, shredded	6 lb 4 oz	1 gal 2 ¼ qt	12 lb 8 oz	3 gal 2 cups	3. Sprinkle 12 oz (3 cups) shredded cheese evenly over each sheet pan. Sprinkle 6 oz (1 ½ cups) shredded cheese evenly over each half-sheet pan.
					4. Spread 1 qt ¼ cup tomato mixture over cheese in each sheet pan. Spread 2 cups 2 Tbsp tomato mixture over cheese in each half-sheet pan.
					5. Sprinkle 1 lb 12 oz (1 qt 3 cups) remaining shredded cheese evenly over tomato mixture in each sheet pan. Sprinkle 14 oz (3 ½ cups) shredded cheese evenly over tomato mixture in each half-sheet pan.
					6. Bake until crust is lightly browned: Conventional oven: 475° F for 15-18 minutes Convection oven: 450° F for 15 minutes
					7. CCP: Hold at 135° F or higher. Cut each sheet pan 4 x 5 (20 pieces per pan). Cut each half-sheet pan 2 x 5

Pizza with Cheese Topping

Meat/Meat Alternate-Vegetable-Grains/Breads Main Dishes D-30

(10 pieces per pan).

Comments:
*See Marketing Guide.

Marketing Guide for Selected Items		
Food as Purchased for	50 Servings	100 Servings
Mature onions	6 oz	12 oz

SERVING:	YIELD:	VOLUME:
1 piece provides 2 oz equivalent meat/meat alternate, ¼ cup of vegetable, and 2 servings of grains/breads.	50 Servings: about 16 lb 4 oz	50 Servings: 2 ½ sheet pans
	100 Servings: about 32 lb 8 oz	100 Servings: 5 sheet pans

Tested 2004

Nutrients Per Serving			
Calories	280	Saturated Fat	4.17 g
Protein	19.85 g	Cholesterol	19 mg
Carbohydrate	31.42 g	Vitamin A	624 IU
Total Fat	8.06 g	Vitamin C	7.0 mg
		Iron	2.17 mg
		Calcium	430 mg
		Sodium	497 mg
		Dietary Fiber	1.9 g

Cheese Sauce

Meat/Meat Alternate

Sauces, Gravies, and Seasoning Mixes

G-08A

Ingredients	1 Quart		1 Gallon		Directions
	Weight	Measure	Weight	Measure	
Margarine or butter		3 Tbsp 1 ½ tsp	7 oz	¾ cup 2 Tbsp	1. Melt margarine or butter. Add flour and salt. Stir until smooth.
Enriched all-purpose flour	2 oz	½ cup	8 oz	1 ¾ cups	
Salt		¼ tsp		1 tsp	
Instant nonfat dry milk, reconstituted, hot		3 ¼ cups		3 qt 1 cup	2. Add milk gradually, stirring constantly.
Cheese blend of American and skim milk cheeses, shredded	10 oz	2 ½ cups	2 ½ lb	2 qt 2 cups	3. Add shredded American cheese. Cook for 12-15 minutes, stirring frequently, until smooth and thick.

CCP: Hold for hot service at 135° F or higher.

SERVING:	YIELD:	VOLUME:
2 Tbsp (1 oz ladle) provides ¼ oz equivalent meat/meat alternate.	1 Quart: 32 2 Tbsp servings	1 Quart: about 1 quart
	1 Gallon: 128 2 Tbsp servings	1 Gallon: about 1 gallon

Tested 2004

Cheese Sauce

Meat/Meat Alternate

Sauces, Gravies, and Seasoning Mixes

G-08A

Nutrients Per Serving			
Calories	49	Saturated Fat	1.21 g
Protein	3.30 g	Cholesterol	5 mg
Carbohydrate	3.30 g	Vitamin A	138 IU
Total Fat	2.53 g	Vitamin C	0.2 mg
		Iron	0.09 mg
		Calcium	95 mg
		Sodium	175 mg
		Dietary Fiber	0.1 g

Quality Score Card for Dairy Products

Date: _____ Name of Menu Item: _____

Proudly Prepared by: _____

Quality Scored by: _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **N/A** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

QUALITY STANDARD	YES	NO	N/A	COMMENTS
APPEARANCE				
Product appears moist, but not watery.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Cheese topping is melted, but not stringy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
No oil or fat is visible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TEXTURE OR CONSISTENCY				
Product is fork tender.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product is moist, not dry.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Food items within the product have a defined texture.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FLAVOR AND SEASONING				
Ingredients have a balanced taste.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product is free from a burned taste or off-flavor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Seasonings are well blended.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SERVICE TEMPERATURE				
145 °F–170 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	



Culinary Practice Score Card for Dairy Products

Name(s): _____

Purpose: The purpose of the activity is to practice Preparing Dairy Products.

Culinary Technique: Identify the culinary technique that you will use. Refer to the previous pages for a description of each technique.

Name of the Recipe: _____

Date for Production: _____

Directions: The manager and school nutrition assistant(s) will select a recipe for dairy products that includes one of the culinary techniques described in this lesson. Check **YES** or **NO** when each step is completed. (This practice activity may be completed individually or with a partner. The manager will make this assignment at the end of the lesson.)

	YES	NO
Plan food production for just-in-time service.		
Did you plan food production for just-in-time service?	<input type="radio"/>	<input type="radio"/>
Review the Quality Score Card and the recipe.		
Did you review the recipe so you are familiar with the ingredients, equipment, and directions?	<input type="radio"/>	<input type="radio"/>
Did you review the Quality Score Card so you will know how the finished product should look and taste?	<input type="radio"/>	<input type="radio"/>
Organize equipment and ingredients.		
Did you assemble all the equipment needed?	<input type="radio"/>	<input type="radio"/>
Did you assemble all of the ingredients needed?	<input type="radio"/>	<input type="radio"/>
Use the right culinary technique.		
Did you use the culinary technique correctly?	<input type="radio"/>	<input type="radio"/>
Deliver a quality product.		
Did you use the Quality Score Card to evaluate the product?	<input type="radio"/>	<input type="radio"/>
Did you review the product with the manager?	<input type="radio"/>	<input type="radio"/>
Discuss the following questions with the manager before serving.		
How can the appearance of the food be improved?		
How can the flavor or taste of the food be improved?		
How can the texture and tenderness of the food be improved?		
How can the service temperature of the food be improved?		

The manager's signature indicates this practice has been completed satisfactorily. The manager should keep this on file or submit it to the central office to document the completion of the lesson.

Name of Manager: _____ **Date Signed:** _____





Participant's Workbook

Preparing Eggs

Time: 1 hour



National Food Service Management Institute
The University of Mississippi



Important Terms

Culinary

Relating to the kitchen or cooking. An example of use is to describe food preparation skills as culinary skills.

Culinary Technique

A step-by-step food preparation method. The culinary techniques discussed in this lesson include cooking cheese.

Egg Products

Processed and convenience forms of eggs for preparation. These products can be classified as refrigerated liquid, frozen, dried, and specialty products.

Just-In-Time Preparation

Preparing a menu item in small enough amounts so that it will be at its peak of quality when placed on the service line. This preparation schedule avoids holding any food for a long time. Other terms that mean the same thing are *batch cooking* and *cooking to the line*.

Mise en Place (meez-un-plahss)

A French term used by chefs and other culinary professionals to describe all the different things that have to be done to get ready up to the point of cooking. Translated, it means *put in place*. It includes all the *get ready steps* in food preparation such as using the recipe to assemble the equipment needed and getting ingredients ready to combine.

Mise en Place

Types of Egg Products:

Refrigerated Liquid Egg Products

- Widely used in foodservice kitchens.
- Packaged in containers that range in size from bags containing a few ounces to cartons (8 ounce–5 pounds) and lacquer coated tins and plastic pails up to 40 pounds.
- Available forms:
 - Whole egg
 - Egg white
 - Egg yolk
 - Various blends of yolk and white

Frozen Egg Products

- Products containing egg yolk usually have salt, sugar, or corn syrup added to prevent gelation or increased viscosity during freezing.
- Packaged in 30 pound containers and in 4, 5, 8, and 10 pound pouches or waxed or plastic cartons.
- Available forms:
 - Whole egg
 - Salted whole egg
 - Whole egg with corn syrup
 - Whole egg with added yolk (fortified)
 - Whole egg with yolk and corn syrup
 - Egg white
 - Egg yolk
 - Salted yolk
 - Sugared yolk
 - Yolk and white blends with or without sweeteners or salts

Dried Egg Products

- Foodservice products packaged in 6 ounce pouches and 3 and 25 pound poly packs.
- Available forms:
 - Whole egg
 - Yolk solids

Specialty Egg Products

- Chopped hard-cooked, peeled eggs, cryogenically frozen and used on salad bars.
- Whole hard-cooked, peeled eggs, plain, or pickled.
- Frozen hard-cooked egg rolls or long eggs — albumen is cooked around a center core of egg yolk. Sliced and used for salads.
- Frozen quiche mixes.
- Frozen scrambled egg mix in boilable pouch.
- Scrambled egg mixes (frozen, refrigerated liquid, or dried).
- Egg substitutes are refrigerated liquid or frozen egg products formulated as substitutes for whole eggs. Such products usually contain only egg white. The yolk is replaced with other ingredients such as non-fat dried milk, vegetable oils, emulsifiers, stabilizers, anti-oxidants, gums, artificial color, minerals, and vitamins.
- Frozen precooked products:
 - Egg patties
 - Fried eggs
 - Crêpes
 - Scrambled eggs
 - Egg pizza
 - Omelets
 - French toast
 - Quiches
 - Egg breakfast sandwiches

Egg Salad Sandwich

Meat/Meat Alternate-Grains/Breads	Sandwiches	F-03
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Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Fresh large eggs, hard-cooked, peeled, chilled		50 each		100 each	1. Finely chop eggs.
*Fresh onions, chopped	8 oz	1 ½ cups	1 lb	2 ¾ cups	2. Combine eggs, onions, celery, pepper, dry mustard, salad dressing or mayonnaise, and pickle relish. Mix lightly until well blended. Spread 4 lb (approximately 2 qt ¼ cup) into each shallow pan (12" x 20" x 2 ½") to a product depth of 2" or less. For 50 servings, use 2 pans. For 100 servings, use 4 pans.
*Fresh celery, chilled, chopped	14 ½ oz	3 ½ cups	1 lb 13 oz	1 qt 3 cups	
Ground black or white pepper		1 ½ tsp		1 Tbsp	
Dry mustard		1 ½ tsp		1 Tbsp	
Reduced calorie salad dressing	14 oz	1 ¾ cups	1 lb 12 oz	3 ½ cups	
OR					
Lowfat mayonnaise	14 oz	1 ¾ cups	1 lb 12 oz	3 ½ cups	
Sweet pickle relish, undrained, chilled	8 ½ oz	1 cup	1 lb 1 oz	2 cups	
					3. CCP: Cool to 41° F or lower within 4 hours. Cover. Refrigerate until ready to use.
*Enriched bread (0.9 oz per slice)	5 lb 10 oz	100 slices	11 lb 4 oz	200 slices	4. Portion with No. 12 scoop (½ cup) on 1 slice of bread. Top with second slice of bread. Cut each sandwich diagonally in half. Cover. Refrigerate until service.

Comments:

*See Marketing Guide.

Marketing Guide for Selected Items		
Food as Purchased for	50 Servings	100 Servings
Mature onions	10 oz	1 lb 4 oz
Celery	1 lb 2 oz	2 lb 4 oz
Bread, sliced	3 ¼ sandwich loaves (2 lb each)	6 ½ sandwich loaves (2 lb each)

Egg Salad Sandwich

Meat/Meat Alternate-Grains/Breads	Sandwiches	F-03																																				
<table><tr><td>SERVING:</td><td>YIELD:</td><td>VOLUME:</td></tr><tr><td>1 sandwich provides 2 oz equivalent meat/meat alternate and 2 servings of grains/breads.</td><td>50 Servings: about 8 lb (filling) 13 lb 10 oz</td><td>50 Servings: about 1 gallon ½ cup (filling) 50 sandwiches</td></tr><tr><td></td><td>100 Servings: about 16 lb (filling) 27 lb 4 oz</td><td>100 Servings: about 2 gallons 1 cups (filling) 100 sandwiches</td></tr></table>			SERVING:	YIELD:	VOLUME:	1 sandwich provides 2 oz equivalent meat/meat alternate and 2 servings of grains/breads.	50 Servings: about 8 lb (filling) 13 lb 10 oz	50 Servings: about 1 gallon ½ cup (filling) 50 sandwiches		100 Servings: about 16 lb (filling) 27 lb 4 oz	100 Servings: about 2 gallons 1 cups (filling) 100 sandwiches																											
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Breakfast Burrito with Salsa

Meat/Meat Alternate-Vegetable-Grains/Breads Breakfast J-02

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Frozen whole eggs, thawed OR Fresh large eggs (see Special Tip)	5 lb	2 qt 1 ½ cups OR 45 each	10 lb	1 gal 2 ¾ cups OR 90 each	1. In a mixer, using the paddle attachment, blend eggs, corn, milk, green peppers, onions, tomatoes, prepared mustard, granulated garlic, hot pepper sauce, and salt.
Frozen whole-kernel corn	1 lb	2 ¾ cups	2 lb	1 qt 1 ½ cups	
Lowfat 1% milk		¾ cup		1 ½ cups	
*Fresh green peppers, diced OR Frozen green peppers	8 oz OR 14 oz	1 ½ cups 2 Tbsp OR 2 ½ cups	1 lb OR 1 lb 12 oz	3 ¼ cups OR 1 qt 1 cup	
*Fresh onions, diced OR Dehydrated onions	14 oz OR 2 ½ oz	2 ½ cups OR 1 ¼ cups	1 lb 12 oz OR 5 oz	1 qt ¾ cup OR 2 ½ cups	
*Fresh tomatoes, diced	2 oz	¼ cup 1 Tbsp	4 oz	½ cup 2 Tbsp	2. Pour 1 gal 2 cups of the above egg mixture into each steamtable pan (12" x 20" x 2 ½") which has been lightly coated with pan release spray. For 50 servings, use 2 pans. For 100 servings, use 4 pans. Cover with foil or metal lid. Bake: Conventional oven: 350° F for 60 minutes Convection oven: 325° F for 50 minutes Steamer: 30 minutes CCP: Heat to 145° F or higher for 3 minutes.
Prepared yellow mustard	2 oz	¼ cup	4 oz	½ cup	
Granulated garlic		2 tsp		1 Tbsp 1 tsp	
Hot pepper sauce		1 Tbsp		2 Tbsp	
Salt		2 tsp		1 Tbsp 1 tsp	
Reduced fat Cheddar cheese, shredded	10 oz	2 ½ cups	1 lb 4 oz	1 qt 1 cup	
Enriched flour tortillas, 8-inch (at least 1.5 oz each)		50 each		100 each	

Breakfast Burrito with Salsa

Meat/Meat Alternate-Vegetable-Grains/Breads	Breakfast	J-02
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Heat: Compartment steamer: for 2-3 minutes. Conventional oven: 300° F for 3 minutes covered with a clean damp cloth. Convection oven: 300° F for 3 minutes covered with a clean damp cloth.		
Canned salsa	3 lb 5 oz	1 qt 2 ¼ cups (½ No. 10 can)
	6 lb 10 oz	3 qt ½ cup (1 No. 10 can)
	5. CCP: Hold for hot service at 135° F or higher. Serve each burrito with 2 Tbsp (1 oz) of salsa.	

Comments:
*See Marketing Guide.

Marketing Guide for Selected Items		
Food as Purchased for	50 Servings	100 Servings
Green peppers	10 oz	1 lb 4 oz
Mature onions	1 lb	2 lb
Tomatoes	3 oz	6 oz

SERVING:	YIELD:	VOLUME:
1 burrito provides 2 oz equivalent meat/meat alternate, ¼ cup of vegetable, and 1 ½ servings of grains/breads.	50 Servings: about 9 lb (filling)	50 Servings: 2 steamtable pans
	100 Servings: about 18 lb (filling)	100 Servings: 4 steamtable pans

Tested 2004

Special Tip:

- 1) For best results, cook egg filling in a steamer.
- 2) For 50 servings, use 1 lb 6 ½ oz (1 qt 3 ½ cups) dried whole eggs and 1 qt 3 ½ cups water in place of eggs. For 100 servings, use 2 lb 12 oz (3 qt 3 cups) dried whole eggs and 3 qt 3 cups water in place of eggs.

Breakfast Burrito with Salsa

Meat/Meat Alternate-Vegetable-Grains/Breads

Breakfast

J-02

Nutrients Per Serving			
Calories	258	Saturated Fat	2.91 g
Protein	12.22 g	Cholesterol	196 mg
Carbohydrate	31.32 g	Vitamin A	552 IU
Total Fat	9.06 g	Vitamin C	5.4 mg
		Iron	2.95 mg
		Calcium	143 mg
		Sodium	564 mg
		Dietary Fiber	2.3 g



Quality Score Card for Eggs

Date: _____ Name of Menu Item: _____

Proudly Prepared by: _____

Quality Scored by: _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **N/A** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

QUALITY STANDARD	YES	NO	N/A	COMMENTS
APPEARANCE				
Product appears moist, but not watery.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
No oil or fat is visible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Egg yolk is bright yellow and egg white is opaque, with no evidence of greening.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TEXTURE OR CONSISTENCY				
Product is fork tender.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product is moist, not dry.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Food items within the product have a defined texture.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Egg mixture is soft, without accumulated water (weeping).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FLAVOR AND SEASONING				
Ingredients have a balanced taste.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Product is free from a burned taste or off-flavor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Seasonings are well blended.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SERVICE TEMPERATURE				
135 °F or higher.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	



Culinary Practice Score Card for Eggs

Name(s): _____

Purpose: The purpose of the activity is to practice Preparing Eggs.

Culinary Technique: Identify the culinary technique that you will use. Refer to the previous pages for a description of each technique.

Name of the Recipe: _____

Date for Production: _____

Directions: The manager and school nutrition assistant(s) will select a recipe for eggs that includes one of the culinary techniques described in this lesson. Check **YES** or **NO** when each step is completed. (This practice activity may be completed individually or with a partner. The manager will make this assignment at the end of the lesson.)

	YES	NO
Plan food production for just-in-time service.		
Did you plan food production for just-in-time service?	<input type="radio"/>	<input type="radio"/>
Review the Quality Score Card and the recipe.		
Did you review the recipe so you are familiar with the ingredients, equipment, and directions?	<input type="radio"/>	<input type="radio"/>
Did you review the Quality Score Card so you will know how the finished product should look and taste?	<input type="radio"/>	<input type="radio"/>
Organize equipment and ingredients.		
Did you assemble all the equipment needed?	<input type="radio"/>	<input type="radio"/>
Did you assemble all of the ingredients needed?	<input type="radio"/>	<input type="radio"/>
Use the right culinary technique.		
Did you use the culinary technique correctly?	<input type="radio"/>	<input type="radio"/>
Deliver a quality product.		
Did you use the Quality Score Card to evaluate the product?	<input type="radio"/>	<input type="radio"/>
Did you review the product with the manager?	<input type="radio"/>	<input type="radio"/>
Discuss the following questions with the manager before serving.		
How can the appearance of the food be improved?		
How can the flavor or taste of the food be improved?		
How can the texture and tenderness of the food be improved?		
How can the service temperature of the food be improved?		

The manager's signature indicates this practice has been completed satisfactorily. The manager should keep this on file or submit it to the central office to document the completion of the lesson.

Name of Manager: _____ Date Signed: _____





Participant's Workbook

Preparing Sauces

Time: 1 hour



National Food Service Management Institute
The University of Mississippi

Important Terms

Coulis (*coolee*)

A French term used to describe sauces made from pureed vegetables or fruits. A vegetable coulis is usually cooked, then pureed. A fruit coulis can be made with an uncooked fruit or it may be cooked.

Culinary

Relating to the kitchen or cooking. An example of use is to describe food preparation skills as culinary skills.

Culinary Technique

A step-by-step food preparation method.

Degreasing

Removing the fat from chilled stock.

Just-In-Time Preparation

Preparing a menu item in small enough amounts so that it will be at its peak of quality when placed on the serving line. This preparation schedule avoids holding any food for a long time. Other terms that mean the same thing are *batch cooking* and *cooking to the line*.

Mise en Place (*meez-un-plahss*)

A French term used by chefs and other culinary professionals to describe all the different things that have to be done to get ready up to the point of cooking. Translated, it means *put in place*. It includes all the *get ready steps* in food preparation such as using the recipe to assemble the equipment needed and getting ingredients ready to combine.

Reduction

A process that removes some or all of the water in a liquid, which not only thickens it but also concentrates the liquid's flavor. A reduction sauce is a sauce thickened by boiling down the liquid to obtain a thicker consistency and a more concentrated flavor. Barbecue sauce is an example.

Roux (*roo*)

Flour and fat cooked together and used as a thickener. There are three types of roux, differing according to the length of time they are cooked: white, blond, and brown.

Slurry

A thickener made with a starch and cold water. The starch may be flour (white or browned), cornstarch, arrowroot, or rice flour.

Stock

A flavorful liquid prepared by simmering meat, poultry, fish, and/or vegetables in water until the flavor is extracted.

Straining

Pouring stock or sauce through a very fine sieve or strainer to produce a smoother sauce. This procedure is used to solve the problem of a lumpy sauce. Stocks should always be strained in this way.



Mise en Place

Getting Ready

How to Make a Stock

There are some important things to do when making a stock. Begin with a stock recipe. The ideal time to make a stock is when whole turkeys or other whole meats are on the menu. The meat is removed and the bones cooked with vegetables and seasonings to make a stock.

White Stock

Chicken or Turkey Stock

(1 gallon)

Approximately 8 pounds of bones

(turkey or chicken)

8 ounces onions, chopped

4 ounces celery, chopped

4 ounces carrots, chopped

Cover with 6 quarts of cold water.

Do not add salt to the stock.

Bring the raw bones and liquid to a boil and reduce the heat so the liquid is at simmer (do not boil). After about 1 hour, add the vegetables and cook until the liquid is reduced by one-third. This will take about 3 hours. Skim the stock as needed during the cooking time.

After the stock is ready, it should be strained to separate all the solids, the bones, and vegetables from the liquid.

Remove the stock from the heat. Using a ladle, carefully ladle the stock from the pot and strain it through a very fine strainer. The strainer should be fine enough that no solids are strained through and the liquid is clear. Use the best tool available for straining stock. Some tools that can be used include a fine mesh-type strainer, a small hand-held colander, a china cap, cheesecloth, or a large coffee filter in a colander.

After the stock has been strained, cool it quickly in shallow pans in the refrigerator or place in an ice water bath. Stir the stock periodically during the cooling process. When the stock is completely chilled (41 °F or less), remove any fat that is on the top.

Storing Stocks

Stock is a clear, flavored liquid that freezes well. Chilled stock can be frozen in one gallon amounts to be used for sauces. However, once a stock has been used to make a sauce, the sauce itself should not be frozen. Sauces do not freeze well and should be made in amounts needed the day of production.

Starting Stocks in Cold Water

By starting with cold water, the entire mixture heats at the same time. The impurities from the bones collect on top of the water and can easily be skimmed off. If hot water is added to the bones, the impurities will coagulate and stay in the water making the stock cloudy.

Mise en Place, continued

Simmer Stocks

Simmering is cooking just below the boiling point, approximately 185 °F. At this temperature, the bones release their flavor into the liquid. When a stock is boiled, the impurities and the fat mix in with the water and the stock becomes cloudy.

Skim the Stock

A good stock is clear, like a commercial stock base mixed with water to make a broth. Skimming frequently during cooking removes impurities and fat that rise to the top so the stock remains clear.

Flavored Commercial Stock Bases

Broths made from commercial chicken stock base, beef stock base, and vegetable stock base are all popular substitutes for school-made stock. Although they save labor costs, a commercial stock base never gives as good a flavor as a school-made stock.

Regular commercial stock bases are high in sodium and for that reason their use should be limited in school kitchens. It is always important to choose ingredients that are consistent with the principles of the Dietary Guidelines for Americans. Substitute a low-sodium for a regular commercial stock base.

Using Commercial Stock Bases

1. Reduce the amount of regular commercial stock base and use only half to three-quarters as much as recommended in the directions. Use the amount of water recommended. If low-sodium stock base is available, follow the directions and use it full strength.
2. Make the sauce using water as the liquid. Then at the end add only enough stock base to get the flavor needed. Begin with half the amount recommended. Add the stock base and then taste test for flavor. Use the least amount of regular stock base needed for flavor.
3. Do not add additional salt or use flavorings such as onion salt or garlic salt.

Tomato Sauce (Meatless)

Sauces, Gravies, and Seasoning Mixes G-07

Ingredients	1 Quart		1 Gallon		Directions
	Weight	Measure	Weight	Measure	
Vegetable oil		2 ¼ tsp		3 Tbsp	1. Heat oil. Add onions and cook approximately 5 minutes.
*Fresh onions, chopped OR Dehydrated onions	3 ½ oz	½ cup 1 Tbsp OR ¼ cup 1 Tbsp	13 ½ oz OR 2 ½ oz	2 ¼ cups OR 1 ¼ cups	
Canned tomato paste	9 ¼ oz	1 cup	2 lb 5 oz	1 qt (⅓ No. 10 can)	2. Add tomato paste, canned tomatoes, water, pepper, parsley, granulated garlic, and seasonings. Mix well and bring to boil. Reduce heat and simmer, uncovered, 25-30 minutes. CCP: Heat to 140° F or higher.
Canned diced tomatoes, with juice	1 lb 9 ½ oz	3 cups 1 Tbsp (⅓ No. 10 can)	6 lb 6 oz	3 qt ¼ cup (1 No. 10 can)	
Water		½ cup		2 cups	
Ground black or white pepper		⅓ tsp		½ tsp	
Dried parsley		1 Tbsp		¼ cup	
Granulated garlic		2 ¼ tsp		1 Tbsp	
†Seasonings Dried basil Dried oregano Dried marjoram Dried thyme		¼ tsp ¼ tsp ¼ tsp pinch		1 tsp 1 tsp ¾ tsp ¼ tsp	
					3. CCP: Hold for hot service at 135° F or higher. Serve over Meat Loaf (see D-27), Meat Balls (see D- 27A), or Salisbury Steak (see D-33).

Comments:

*See Marketing Guide.

†Italian Seasoning Mix (see G-01, Sauces, Gravies, and Seasoning Mixes) may be used to replace these ingredients. For 1 quart, use ¾ tsp Italian Seasoning Mix. For 1 gallon, use 1 Tbsp Italian Seasoning Mix.

Marketing Guide for Selected Items

Food as Purchased for	1 Quart	1 Gallon
Mature onions	4 oz	1 lb

Tomato Sauce (Meatless)

Sauces, Gravies, and Seasoning Mixes G-07

SERVING:		YIELD:	VOLUME:
2 Tbsp (1 oz ladle).		32 2 Tbsp servings	1 Quart: about 1 quart
		128 2 Tbsp servings	1 Gallon: about 1 gallon

Tested 2004

Nutrients Per Serving					
Calories	16	Saturated Fat		Iron	
Protein	0.56 g	Cholesterol		Calcium	
Carbohydrate	3.01 g	Vitamin A		Sodium	
Total Fat	0.38 g	Vitamin C		Dietary Fiber	
					0.36 mg
					11 mg
					37 mg
					0.7 g

Apricot Coulis

Yield: 1 1/2 quarts

Ingredients	Amount	Directions
Dried Apricots Water Sugar	1 pound 2 1/2 cups 5 ounces	1. Combine apricots, water, and sugar in a saucepan. Simmer for 5 minutes. 2. Remove from heat; cool. Puree mixture in a food processor.
Orange Juice	2 1/2 cups	3. Add orange juice. Serve chilled.

Serving size: Serve #40 scoop (1 1/2 tablespoons) of Apricot Coulis as a sauce for cake squares, vanilla pudding, ice cream, or chicken or pork tenders. The recipe makes approximately 64 servings.

Variation: Dried peaches can be substituted for all or part of the dried apricots.

Adapted from: *Healthy Cuisine for Kids Workshop*.

Knowing how a sauce recipe works helps make sense of the culinary techniques used for making sauces. Understanding the basic principles of sauce making also helps to justify using recipes. Sauces can become a more important part of school menus and can help to liven up traditional dishes. Use USDA recipes for sauces and look for new ones.



Chicken Tetrazzini

Meat/Meat Alternate-Vegetable-Grains/Breads

Main Dishes

D-42

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Water		3 gal	6 gal		1. Boil water and salt in a steam-jacketed kettle or stock pot. Add spaghetti. Cook until firm-tender, 8 minutes. Drain and hold in cold water. Set aside.
Salt		2 tsp	1 Tbsp	1 tsp	
Enriched spaghetti, broken into thirds	2 lb 6 oz	1 qt 3 ¾ cups	4 lb 12 oz	3 qt 3 ½ cups	
Vegetable oil		¼ cup	½ cup		2. In a steam-jacketed kettle or large sauce pan, heat the vegetable oil. Add the vegetable mix or frozen vegetables, mushrooms, and pimientos (optional). Sauté vegetables 5 minutes or until tender. Set aside.
Vegetable mix: *Fresh onions, diced *Fresh carrots, diced *Fresh celery, diced *Fresh green peppers, diced OR Frozen mixed vegetables	1 lb 1 lb 8 oz 4 oz OR 2 lb 8 oz	2 ⅔ cups 1 qt 2 cups ¾ cup 2 Tbsp OR 1 qt 3 ½ cups	2 lb 2 lb 1 lb 8 oz OR 5 lb	1 qt 1 ½ cups 2 qt 1 qt 1 ¾ cups OR 3 qt 3 cups	
*Fresh mushrooms, sliced OR Canned sliced mushrooms, drained	1 lb 4 oz OR 10 oz	2 qt OR 1 ¾ cups 2 Tbsp	2 lb 8 oz OR 1 lb 4 oz	1 gal OR 3 ¾ cups	
Canned pimientos, diced, drained (optional)	8 oz	1 cup	1 lb	2 cups	
Margarine or butter	12 oz	1 ½ cups	1 lb 8 oz	3 cups	3. Melt the margarine or butter in a steam-jacketed kettle or stock pot. Add flour and cook for 5 minutes.
Enriched all-purpose flour	8 oz	1 ¾ cups 2 Tbsp	1 lb	3 ¾ cups	
Lowfat 1% milk, hot		3 qt 3 cups		1 gal 3 ½ qt	4. Slowly add the milk to the flour mixture. Simmer, stirring frequently, until the mixture is thickened. Add chicken stock, pepper, onion salt, and garlic. Simmer for 5 minutes.
Chicken stock, non-MSG, hot		2 qt 1 cup		1 gal 2 cups	
Ground black or white pepper		1 tsp		2 tsp	
Onion salt		2 tsp		1 Tbsp 1 tsp	
Granulated garlic		2 tsp		1 Tbsp 1 tsp	

Chicken Tetrazzini

Meat/Meat Alternate-Vegetable-Grains/Breads			Main Dishes	D-42
*Cooked chicken, diced (see Special Tip)	6 lb 4 oz	12 lb 8 oz	5. In each steamtable pan (12" x 20" x 2 1/2"), combine 3 lb 12 oz (3 qt) of cooked spaghetti, 3 lb 2 oz of cooked diced chicken, 1 qt of cooked vegetables, and 2 qt 1 cup of sauce. For 50 servings, use 2 pans. For 100 servings, use 4 pans.	
Grated Parmesan cheese	6 oz	2 cups 2 Tbsp	6. Sprinkle 3 oz (3/4 cup 2 Tbsp) of Parmesan cheese on top of each pan.	
			7. Bake until golden brown: Conventional oven: 350° F for 30 minutes Convection oven: 325° F for 35 minutes CCP: Heat to 165° F or higher for at least 15 seconds.	
			8. CCP: Hold for hot service at 135° F or higher. Cut each pan 5 x 5 (25 pieces per pan).	

Comments:

*See Marketing Guide.

Marketing Guide for Selected Items		
Food as Purchased for	50 Servings	100 Servings
Mature onions	1 lb 3 oz	2 lb 6 oz
Carrots	1 lb 4 oz	2 lb 8 oz
Celery	10 oz	1 lb 4 oz
Green peppers	5 oz	10 oz
Mushrooms	1 lb 5 oz	2 lb 10 oz
Chicken, whole, without neck and giblets OR Turkey, whole, without neck and giblets	17 lb 6 oz OR 13 lb 5 oz	34 lb 12 oz OR 26 lb 10 oz

SERVING:	YIELD:	VOLUME:
1 piece provides 2 oz equivalent meat/meat alternate, 1/4 cup of vegetable, and 1/2 serving of grains/breads.	50 Servings: about 30 lb	50 Servings: 2 steamtable pans
	100 Servings: about 60 lb	100 Servings: 4 steamtable pans

Tested 2004

Chicken Tetrazzini

Meat/Meat Alternate-Vegetable-Grains/Breads

Main Dishes

D-42

Special Tip:
*Cooked turkey can be substituted for chicken.

Nutrients Per Serving			
Calories	313	Saturated Fat	3.61 g
Protein	23.54 g	Cholesterol	56 mg
Carbohydrate	24.27 g	Vitamin A	2490 IU
Total Fat	13.13 g	Vitamin C	3.4 mg
		Iron	1.88 mg
		Calcium	156 mg
		Sodium	355 mg
		Dietary Fiber	1.6 g

Quality Score Card for Sauces

Date: _____ Name of Menu Item: _____

Proudly Prepared by: _____

Quality Scored by: _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **N/A** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

QUALITY STANDARD	YES	NO	N/A	COMMENTS
APPEARANCE				
No lumps are visible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
There is no visible fat or scum.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Color is consistent with the main ingredients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
The sauce/gravy appears fresh, not too jellied.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TEXTURE OR CONSISTENCY				
Thickness is about like corn syrup.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
There are no lumps.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Added ingredients are fork-tender.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FLAVOR AND SEASONING				
Seasonings are balanced with no one additive predominant (salt is not an obvious taste).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Thickener has been thoroughly cooked so there is no starchy taste.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
True flavor with no taste of burned thickener or off-flavor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
The sauce or gravy complements the food item.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SERVICE TEMPERATURE				
160 °F–170 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	



Culinary Practice Score Card for Sauces

Name(s): _____

Purpose: The purpose of the activity is to practice Preparing Sauces.

Culinary Technique: (Identify the culinary technique that you will use. Refer to the previous pages for a description of each technique.)

Name of the Recipe: _____

Date for Production: _____

Directions: The manager and school nutrition assistant(s) will select a recipe for sauce that includes one of the culinary techniques described in this lesson.. Check **YES** or **NO** when each step is completed. (This practice activity may be completed individually or with a partner. The manager will make this assignment at the end of the lesson.)

	YES	NO
Plan food production for just-in-time service.		
Did you plan food production for just-in-time service?	<input type="radio"/>	<input type="radio"/>
Review the Quality Score Card and the recipe.		
Did you review the recipe so you are familiar with the ingredients, equipment, and directions?	<input type="radio"/>	<input type="radio"/>
Did you review the Quality Score Card so you will know how the finished product should look and taste?	<input type="radio"/>	<input type="radio"/>
Organize equipment and ingredients.		
Did you assemble all the equipment needed?	<input type="radio"/>	<input type="radio"/>
Did you assemble all of the ingredients needed?	<input type="radio"/>	<input type="radio"/>
Use the right culinary technique.		
Did you use the culinary technique correctly?	<input type="radio"/>	<input type="radio"/>
Deliver a quality product.		
Did you use the Quality Score Card to evaluate the product?	<input type="radio"/>	<input type="radio"/>
Did you review the product with the manager?	<input type="radio"/>	<input type="radio"/>
Discuss the following questions with the manager before serving.		
How can the appearance of the food be improved?		
How can the flavor or taste of the food be improved?		
How can the texture and tenderness of the food be improved?		
How can the service temperature of the food be improved?		

The manager's signature indicates this practice has been completed satisfactorily. The manager should keep this on file or submit it to the central office to document the completion of the lesson.

Name of Manager: _____ Date Signed: _____





Participant's Workbook

Preparing Cakes, Cookies, and Pastry

Time: 1 hour



National Food Service Management Institute
The University of Mississippi



Important Terms

Blend

To thoroughly mix two or more ingredients.

Conventional Oven

An electric or gas oven arranged either as decks or under a range top.

Convection Oven

An oven that has a fan that constantly circulates heated air across the food. This convection action increases the heat absorption process, shortens required cooking time, and reduces shrinkage of food.

Culinary

Relating to the kitchen or cooking. An example of use is to describe food preparation skills as culinary skills.

Culinary Technique

A step-by-step food preparation method.

Fold

To combine by using two motions, cutting vertically through the mixture and turning the mixture over and over.

Just-In-Time Preparation

Preparing a menu item in small enough amounts so that it will be at its peak of quality when placed on the serving line. This preparation schedule avoids holding any food for a long time. Other terms that mean the same thing are *batch cooking* and *cooking to the line*.

Leavening Agent

An ingredient that makes a product light and porous. Leavening agents include yeast, baking powder, baking soda, eggs, egg whites, air, and steam.

Mise en Place (meez-un-plahss)

A French term used by chefs and other culinary professionals to describe all the different things that have to be done to get ready up to the point of cooking. Translated, it means *put in place*. It includes all the *get ready steps* in food preparation such as using the recipe to assemble the equipment needed and getting ingredients ready to combine.

Nutrients

The chemical substances found in food that nourish the body. There are six classes of nutrients: proteins, carbohydrates, fats, water, minerals, and vitamins.

Mise en Place

Dairy Products

Dairy products in baked good can be used as a liquid ingredient or as a fat. They provide batters with moisture, tenderizing ability, and increased nutrients. Dairy products are also used in icings and fillings.

Commonly Used Products

Type of dairy product	Percent fat	Grams of fat per cup
Skim milk	0 %	.5
Fat-free yogurt	Less than 1/2 %	.5
Evaporated skim milk	Less than 1/2 %	.5
Sour cream, fat free	0	0
Buttermilk	1 %	2.2
Low-fat milk	1 %	2.2
Reduced-fat milk	2 %	4.4
Whole milk	3.25 %	7.7
Yogurt, whole milk	3.25 %	7.7
Evaporated milk	6.5 %	19
Sweetened condensed milk	8 %	26.6
Ricotta cheese	7 %	32
Half-and-half	10–12 %	27.6
Cream cheese, low-fat	17–18 %	42
Light cream	16–22 %	46.3
Sour cream	18–30 %	48.2
Cream cheese	33–55 %	80.9
Heavy cream	36–40 %	88
Butter	80 %	182

Spices commonly used in cakes, cookies, pies

Allspice

Cinnamon

Clove

Ginger

Nutmeg

Vanilla

What Happened to the Cake?

Cake Problem (Exterior)	What Could Have Happened to Cause It?	
Too little volume	<ul style="list-style-type: none"> • Too little flour • Too much leavening • Wrong kind of flour • Batter too warm 	<ul style="list-style-type: none"> • Too much liquid • Oven too hot • Unbalanced recipe
Uneven shape	<ul style="list-style-type: none"> • Improper mixing • Uneven oven heat 	<ul style="list-style-type: none"> • Batter spread unevenly • Oven rack not level
Crust too dark	<ul style="list-style-type: none"> • Too much sugar • Overbaked 	<ul style="list-style-type: none"> • Oven too hot
Pale color	<ul style="list-style-type: none"> • Too little sugar • Wrong type pan • Oven temperature too low 	<ul style="list-style-type: none"> • Too much liquid • Underbaked
Crust too thick	<ul style="list-style-type: none"> • Oven not hot enough 	
Cake bursts on top	<ul style="list-style-type: none"> • Incorrect amount of flour • Oven too hot • Overmixed 	<ul style="list-style-type: none"> • Too little liquid • Improper type of flour
Specks on cake	<ul style="list-style-type: none"> • Sugar too coarse 	<ul style="list-style-type: none"> • Not enough liquid
Cake falls during baking	<ul style="list-style-type: none"> • Not enough flour • Cake is moved before structure is formed 	<ul style="list-style-type: none"> • Underbaked
Cake Problem (Interior)		
Coarse, uneven crumb	<ul style="list-style-type: none"> • Improperly mixed • Not enough leavening agent • Unbalanced formula 	<ul style="list-style-type: none"> • Batter too stiff • Not enough eggs
Compact texture	<ul style="list-style-type: none"> • Overmixed 	
Tunnels	<ul style="list-style-type: none"> • Too much egg • Overmixed • Excessive bottom heat 	<ul style="list-style-type: none"> • Too little sugar • Oven too hot
Sinking of fruit	<ul style="list-style-type: none"> • Too much leavening agent • Improper type of flour • Imbalanced recipe 	<ul style="list-style-type: none"> • Too much heat • Fruit not drained properly



Cookies

Categories of Cookies

Bar or Sheet Cookies

- Make a soft dough or batter.
- Bake in a half-sheet pan (50 servings) or a full sheet pan (100 servings).

Scooped or Dropped Cookies

- Make a soft dough.
- Shape and bake as soon as the dough is mixed.
- Use the appropriate scoop:
 - A number 40 scoop will make a medium-sized, 2 1/2–3 inch cookie, weighing about 3/4 ounce.
 - A number 20, 24, or 30 scoop can be used for larger cookies.
- Allow room for expanding – cookies typically spread during baking.
- Bake at 325 °F–350 °F.

Molded or Refrigerated Cookies

- Make a stiff dough.
- Roll into a log or balls.

Rolled Cookies

- Make a stiff dough.
- Roll on a lightly floured surface.

Tips

- Remove from sheet pans using an offset spatula while cookies are still slightly warm.
- Do not overbake cookies.
- Cool cookies on a rack.

What Happened to the Cookie?

Cookie Problem	What Could Have Happened to Cause It?	
Uneven shape	<ul style="list-style-type: none"> • Improper mixing • Uneven oven heat 	<ul style="list-style-type: none"> • Improper dropping of dough
Excessive spreading	<ul style="list-style-type: none"> • Too much liquid • Dough too warm • Overcreaming 	<ul style="list-style-type: none"> • Too much fat and sugar • Incorrect oven temperature
Dry, crumbly texture	<ul style="list-style-type: none"> • Incorrect proportion of ingredients 	<ul style="list-style-type: none"> • Incorrect oven temperature • Overbaking
Coarse, uneven crumb	<ul style="list-style-type: none"> • Improperly mixed • Not enough leavening agent • Oven temperature too low 	<ul style="list-style-type: none"> • Batter too stiff • Not enough eggs
Tough	<ul style="list-style-type: none"> • Excessive rolling 	
Hard, crusty top	<ul style="list-style-type: none"> • Overmixed 	<ul style="list-style-type: none"> • Overbaked



Basic Principles of Preparing Pies

A good pie has a tender, flaky crust that can top a variety of fillings. Pies can be sweet and served as a dessert. Filled with various fruits, pies are a favorite way to add more fruit to your menus. Pies can be savory and be meat-filled or vegetarian.

A basic pie dough ratio of ingredients:

- 3 parts flour
- 2 parts fat
- 1 part water (by weight)

Tips for a tender, flaky pie crust:

- Use a solid, cold fat.
- Use a low-protein flour.
- Add an acid.
- Avoid using too much water.
- Do not overmix.
- Allow the dough to rest.

What Happened to the Pie?

Pie Problem	What Could Have Happened to Cause It?	
Smooth surface	<ul style="list-style-type: none"> • Overhandling 	<ul style="list-style-type: none"> • Too much flour when rolling
Shrunk	<ul style="list-style-type: none"> • Stretched crust when easing into the pan • Protein content of flour too high 	<ul style="list-style-type: none"> • Overmixing • Too much water
Tough	<ul style="list-style-type: none"> • Too much water • Overhandling 	<ul style="list-style-type: none"> • Overmixing • Protein content of flour too high
Not flaky	<ul style="list-style-type: none"> • Temperature of dough too high 	<ul style="list-style-type: none"> • Shortening too soft • Overmixing
Too tender	<ul style="list-style-type: none"> • Undermixing • Too much shortening 	<ul style="list-style-type: none"> • Not enough liquid
Soggy bottom crust	<ul style="list-style-type: none"> • Baked too short time • Oven temperature too low 	<ul style="list-style-type: none"> • Too much fat in crust
Dry	<ul style="list-style-type: none"> • Shortening cut in too finely 	<ul style="list-style-type: none"> • Not enough liquid



New Oatmeal Raisin Cookies

Desserts

C-25

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Sugar	1 lb 8 oz	3 cups	3 lb	1 qt 2 cups	1. Combine sugar and margarine or butter in mixer with a paddle attachment for 5 minutes on medium speed until smooth and creamy.
Margarine or butter	8 oz	1 cup	1 lb	2 cups	
Frozen whole eggs, thawed OR Fresh large eggs (see Special Tip)	8 oz	$\frac{3}{4}$ cup 3 Tbsp OR 5 each	1 lb	$1\frac{3}{4}$ cups 2 Tbsp OR 9 each	2. Add eggs slowly. Mix on medium speed for 1 minute.
Lowfat 1% milk		$\frac{1}{2}$ cup		1 cup	3. Add milk and applesauce. Mix for 1 minute on medium speed. Scrape down sides of bowl.
Canned applesauce	8 oz	1 cup	1 lb	2 cups	
Enriched all-purpose flour	12 oz	$2\frac{3}{4}$ cups	1 lb 8 oz	1 qt $1\frac{1}{2}$ cups	4. Add the flour, baking soda, salt, cinnamon, and nutmeg. Mix for 2 minutes on low speed until blended.
Baking soda		1 tsp		2 tsp	
Salt		1 tsp		2 tsp	
Ground cinnamon		2 tsp		1 Tbsp 1 tsp	
Ground nutmeg		1 tsp		2 tsp	
Rollled oats	1 lb 4 oz	1 qt 3 cups	2 lb 8 oz	3 qt 2 cups	5. Add oats and raisins. Mix on low speed for 30 seconds.
Raisins	13 oz	$2\frac{3}{4}$ cups	1 lb 10 oz	1 qt $1\frac{1}{2}$ cups	6. Lightly coat each sheet pan (18" x 26" x 1") with pan release spray or line with parchment paper. For 50 servings, use 3 pans, one pan will have only 10 cookies. For 100 servings, use 5 pans. Portion with level No. 24 scoop ($2\frac{2}{3}$ Tbsp) in rows of 4 across and 5 down.
					7. Bake until lightly browned: Conventional oven: 350° F for 18-20 minutes Convection oven: 325° F for 10-12 minutes

SERVING:

1 cookie.
For Enhanced Meal Pattern only: 1 cookie provides 1 serving of grains/breads.

YIELD:

50 Servings: about 6 lb 1 oz (dough)

VOLUME:

50 Servings: about 2 quarts $1\frac{1}{2}$ cup (dough)
50 cookies

New Oatmeal Raisin Cookies

Desserts C-25

100 Servings: about 12 lb 2 oz (dough) **100 Servings:** about 1 gallon 1 cup (dough)
100 cookies

Edited 2006

Special Tips:
For 50 servings, use 2 ¼ oz (¾ cup) dried whole eggs and ¾ cup water in place of eggs.
For 100 servings, use 4 ½ oz (1 ½ cup) dried whole eggs and 1 cup water in place of eggs.
For bar cookies, spread 6 lb 5 oz (2 qt ½ cup) of dough in a half-sheet pan (18" x 13" x 1") which has been lightly coated with pan release spray. Bake for 20-25 minutes in a 325° F convection oven. Cut 5 x 10 for 50 servings.

Nutrients Per Serving			
Calories	188	Saturated Fat	1.07 g
Protein	3.56 g	Cholesterol	19 mg
Carbohydrate	33.34 g	Vitamin A	197 IU
Total Fat	5.04 g	Vitamin C	0.4 mg
		Iron	1.13 mg
		Calcium	19 mg
		Sodium	122 mg
		Dietary Fiber	1.8 g

Carrot Cake

Vegetable/Fruit

Desserts

C-05

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Enriched all-purpose flour	1 lb 14 oz	1 qt 3 cups	3 lb 12 oz	3 qt 2 cups	1. Blend flour, sugar, baking powder, salt, cinnamon, cloves, nutmeg (optional), and dry milk in mixer for 1 minute on low speed.
Sugar	1 lb 11 ½ oz	1 qt	3 lb 7 oz	2 qt	
Baking powder		3 Tbsp 2 tsp	3 oz	¾ cup ¾ Tbsp	
Salt		1 ½ tsp		1 Tbsp	
Ground cinnamon		1 ½ tsp		1 Tbsp	
Ground cloves		1 tsp		2 tsp	
Ground nutmeg (optional)		1 tsp		2 tsp	
Instant nonfat dry milk	2 ½ oz	1 cup	5 oz	2 cups	
Frozen whole eggs, thawed OR Fresh large eggs (see Special Tip)	1 lb	1 ¾ cups 2 Tbsp OR 9 each	2 lb	3 ¾ cups OR 18 each	2. Add eggs and oil to dry ingredients. Blend for 30 seconds on low speed. Beat for 6 minutes on medium speed.
Vegetable oil		2 cups		1 qt	
*Fresh carrots, shredded	1 lb 14 oz	2 qt ¾ cup	3 lb 12 oz	1 gal 1 ½ cups	3. Add carrots, pineapple, and nuts (optional). Blend for 30 seconds on low speed. Beat for 2 minutes on medium speed.
Canned, crushed pineapple, drained	1 lb 3 oz	2 ½ cups (¼ No. 10 can)	2 lb 6 oz	1 qt 1 cup (½ No. 10 can)	
Chopped walnuts (optional)	6 ½ oz	1 ½ cups	13 oz	3 cups	
4. Pour 8 lb 12 oz (approximately 1 gal) batter into each sheet pan (18" x 26" x 1") which has been lightly coated with pan release spray and dusted with flour. For 50 servings, use 1 pan. For 100 servings, use 2 pans.					
5. Bake until lightly browned: Convection oven: 350° F for 35-45 minutes Convection oven: 300° F for 30-40 minutes					
6. Cool. If desired, frost or lightly dust with powdered sugar.					
7. Cut each pan 5 x 10 (50 pieces per pan).					

Carrot Cake

Vegetable/Fruit	Desserts	C-05
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Comments:
* See Marketing Guide.

Marketing Guide for Selected Items		
Food as Purchased for	50 Servings	100 Servings
Carrots	2 lb 5 oz	4 lb 10 oz

SERVING:	YIELD:	VOLUME:
1 piece provides $\frac{1}{4}$ cup of vegetable and fruit. For Enhanced Meal Pattern only: 1 piece also provides 1 serving of grains/breads.	50 Servings: about 8 lb 12 oz (batter) about 7 lb 14 oz	50 Servings: about 1 gallon (batter) 1 sheet pan
	100 Servings: about 17 lb 8 oz (batter) about 15 lb 12 oz	100 Servings: about 2 gallons (batter) 2 sheet pans

Tested 2004

Special Tip:
For 50 servings, use 4 $\frac{1}{2}$ oz (1 $\frac{1}{2}$ cup) dried whole eggs and 1 $\frac{1}{2}$ cup water in place of eggs.

For 100 servings, use 9 oz (3 cups) dried whole eggs and 3 cups water in place of eggs.

Nutrients Per Serving			
Calories	232	Saturated Fat	1.54 g
Protein	3.62 g	Cholesterol	39 mg
Carbohydrate	33.02 g	Vitamin A	3898 IU
Total Fat	9.86 g	Vitamin C	1.5 mg
		Iron	1.18 mg
		Calcium	82 mg
		Sodium	190 mg
		Dietary Fiber	1.2 g

Quality Score Card for Cakes and Cookies

Date: _____ Name of Menu Item: _____

Proudly Prepared by: _____

Quality Scored by: _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **N/A** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

QUALITY STANDARD	YES	NO	N/A	COMMENTS
APPEARANCE				
Top has a smooth surface.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Top is slightly rounded.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Volume is high for the pan size.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Interior is fine-grained with small, evenly distributed cell walls.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Interior has uniform distribution of gas holes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Color is golden-brown (except chocolate cake).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Portions are uniform in size.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Icing or flavor enhancer covers entire cake portion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TEXTURE OR CONSISTENCY				
Cake is light, but not crumbly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Texture is soft, velvety, and moist (not tacky or soggy).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Crumb is so tender as to <i>melt in the mouth</i> .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FLAVOR AND SEASONING				
Flavor is delicate, sweet, and well-blended (no foreign flavors such as oily, starchy, or burnt flavor).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Icing or other flavor enhancer is fresh tasting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SERVICE TEMPERATURE				
60 °F–70 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Quality Score Card for Pies (Pastry)

Date: _____ Name of Menu Item: _____

Proudly Prepared by: _____

Quality Scored by: _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **N/A** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

QUALITY STANDARD	YES	NO	N/A	COMMENTS
APPEARANCE				
Filling pieces are similar in size.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Filling pieces are intact.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Garnish is edible and appropriate for the dish.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Pastry or topping has a golden brown color.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Pastry has a blistery surface.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TEXTURE OR CONSISTENCY				
All pieces of the filling have the same texture.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Pastry has a flaky texture.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Pastry cuts easily.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FLAVOR AND SEASONING				
If seasonings have been used, they are detectable but not overpowering.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Seasonings enhance the filling flavor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Pastry has a pleasant, bland flavor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SERVICE TEMPERATURE				
Pastry Dessert: 60 °F–70 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Hot Pastry: 160 °F–180 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Culinary Practice Score Card for Cakes, Cookies, and Pies (Pastry)

Name(s): _____

Purpose: The purpose of the activity is to practice Preparing Cakes, Cookies, and Pastry.

Culinary Technique: Identify the culinary technique that you will use. Refer to the previous pages for a description of each technique.

Name of the Recipe: _____

Date for Production: _____

Directions: The manager and school nutrition assistant(s) will select a recipe for either cakes, cookies, or pies that includes one of the culinary techniques described in this lesson. Check **YES** or **NO** when each step is completed. (This practice activity may be completed individually or with a partner. The manager will make this assignment at the end of the lesson.)

	YES	NO
Plan food production for just-in-time service.		
Did you plan food production for just-in-time service?	<input type="radio"/>	<input type="radio"/>
Review the Quality Score Card and the recipe.		
Did you review the recipe so you are familiar with the ingredients, equipment, and directions?	<input type="radio"/>	<input type="radio"/>
Did you review the Quality Score Card so you will know how the finished product should look and taste?	<input type="radio"/>	<input type="radio"/>
Organize equipment and ingredients.		
Did you assemble all the equipment needed?	<input type="radio"/>	<input type="radio"/>
Did you assemble all of the ingredients needed?	<input type="radio"/>	<input type="radio"/>
Use the right culinary technique.		
Did you use the culinary technique correctly?	<input type="radio"/>	<input type="radio"/>
Deliver a quality product.		
Did you use the Quality Score Card to evaluate the product?	<input type="radio"/>	<input type="radio"/>
Did you review the product with the manager?	<input type="radio"/>	<input type="radio"/>
Discuss the following questions with the manager before serving.		
How can the appearance of the food be improved?		
How can the flavor or taste of the food be improved?		
How can the texture and tenderness of the food be improved?		
How can the service temperature of the food be improved?		

The manager's signature indicates this practice has been completed satisfactorily. The manager should keep this on file or submit it to the central office to document the completion of the lesson.

Name of Manager: _____ Date Signed: _____





Participant's Workbook

Preparing Yeast Breads

Time: 1 hour



National Food Service Management Institute
The University of Mississippi

Important Terms

Wheat Flour Terms

Enriched

Flour supplemented with iron and four B-vitamins (thiamine, niacin, riboflavin, and folate) and may be with calcium, to replace some of the nutrients lost during processing.

Fortified

Implies that something is added to a product that makes its nutritional status higher than the product made from unprocessed raw materials.

Pre-sifted flour

Sifted at the mill, making it unnecessary to sift before measuring.

Bromated flour

Largely discontinued in the United States. Ascorbic acid is now being added to strengthen the flour for bread doughs.

Bleached

Refers to flour that has been chemically-bleached to whiten or improve the baking qualities. No change occurs in the nutritional value of the flour and no harmful chemical residues remain. Bleaching speeds up the natural lightening and maturing of flour.

Unbleached flour

Aged and bleached naturally by oxygen in the air. It is more golden in color and may not have the consistency in baking qualities that bleached flour does. Unbleached is preferred for yeast breads because bleaching affects gluten strength.

Patent flour, bleached or unbleached

The highest grade of flour. It is lower in ash and protein with good color. Market-wise, it is considered the highest in value and mostly used by bakers.

Culinary

Relating to the kitchen or cooking. An example of use is to describe food preparation skills as culinary skills.

Culinary Technique

A step-by-step food preparation method. The culinary techniques described in this lesson include preparing fresh fruits and baking fruits.

Gluten

The protein in flour. Gluten strands are formed as the result of kneading the flour and water and they give the structure to a bread product.

Just-In-Time Preparation

Preparing a menu item in small enough amounts that it will be at its peak of quality when placed on the service line. This preparation schedule avoids holding any food for a long time. Other terms that mean the same thing are *batch cooking* and *cooking to the line*.

Mise en Place (meez-un-plahss)

A French term used by chefs and culinary food professionals to describe all the different things that have to be done to get ready up to the point of cooking. Translated, it means *put in place*. It includes all the *get ready steps* in food preparation such as using the recipe to assemble the equipment needed and getting ingredients ready to combine.

Proofing

The final rising period before baking for yeast doughs that have been shaped.

Scaling

A baking term that means measuring and weighing ingredients. Dry ingredients should be weighed. If scales are not available, measure dry ingredients with dry measuring utensils. Liquid ingredients should be measured using liquid measuring utensils.

Slashing

Using a sharp knife to make several cuts diagonally across the bread loaf before it is baked. This is usually done for breads that have a hard crust, such as French bread. Also called docking.

What Happened to the Yeast Bread?

Yeast Bread Problem	What Could Have Happened to Cause It?	
Too much volume	<ul style="list-style-type: none"> • Too much yeast • Oven temperature too low • Wrong kind of flour for the bread recipe 	<ul style="list-style-type: none"> • Too little salt • Overproofed • Too much dough for the baking pan
Too little volume	<ul style="list-style-type: none"> • Too little yeast or old yeast • Dough chilled • Over- or underproofed • Not enough dough in baking pan 	<ul style="list-style-type: none"> • Too much salt • Wrong kind of flour for the bread recipe • Kneaded too much or not enough
Pale color	<ul style="list-style-type: none"> • Not enough sugar • Overfermented dough 	<ul style="list-style-type: none"> • Oven temperature too low • Dried crust formed before baking
Dark color	<ul style="list-style-type: none"> • Too much sugar • Dough temperature too low • Baked too long 	<ul style="list-style-type: none"> • Too much milk • Oven temperature too high
Cracked crust	<ul style="list-style-type: none"> • Overmixed • Improperly shaped • Top of hard-crust bread not slashed properly before baking 	<ul style="list-style-type: none"> • Dough too stiff • Cooled too fast • Dried crust formed during proofing
Blisters on crust	<ul style="list-style-type: none"> • Too much liquid 	<ul style="list-style-type: none"> • Improperly shaped
Coarse texture	<ul style="list-style-type: none"> • Not enough flour • Underkneaded • Temperature of dough out of mixer too high 	<ul style="list-style-type: none"> • Slack dough • Proofed too long or at too high a temperature
Large holes in bread	<ul style="list-style-type: none"> • Too much yeast • Inadequate punch down 	<ul style="list-style-type: none"> • Overkneaded
Heavy texture	<ul style="list-style-type: none"> • Underkneaded • Not enough yeast • Too short proofing time • Too much dough in the baking pan 	<ul style="list-style-type: none"> • Too cool proofing temperature • Poor distribution of ingredients • Yeast partially killed by hot liquid
Crumbly, dry	<ul style="list-style-type: none"> • Too stiff dough • Dough proofed too long 	<ul style="list-style-type: none"> • Underkneaded • Oven temperature too low
Poor flavor	<ul style="list-style-type: none"> • Flat flavor - too little salt • Sour flavor - too long proofing or poor quality ingredients 	<ul style="list-style-type: none"> • Yeasty flavor - too long proofing period or proofing temperature too warm

Rolls (Yeast)

Grains/Breads		50 Servings		100 Servings		Directions
Ingredients	Weight	Measure	Weight	Measure		
	For best results, have all ingredients and utensils at room temperature.					
Active dry yeast (see Special Tip)		1/5 cup	3 1/4 oz	1/2 cup 2 Tbsp	1. Dissolve dry yeast in warm water. Let stand for 4-5 minutes.	
Water, warm (110° F)		1 1/2 cups		3 cups		
Enriched all-purpose flour	3 lb 10 oz	3 qt 1 1/2 cups	7 lb 4 oz	1 gal 2 3/4 qt	2. Place flour, dry milk, sugar, and salt in mixer bowl. Blend with dough hook for approximately 2 minutes on low speed.	
Instant nonfat dry milk	3 1/4 oz	1 1/2 cups	6 1/2 oz	2 2/5 cups		
Sugar	5 3/4 oz	3/4 cup 2 Tbsp	11 1/2 oz	1 3/4 cups		
Salt		2 Tbsp	2 1/2 oz	1/4 cup		
Vegetable oil		3/4 cup 2 Tbsp		1 2/5 cups	3. Add oil and blend for approximately 2 minutes on low speed.	
Water (68° F)		2 1/2 cups		1 qt 1 cup	4. Add water. Mix for 1 minute on low speed.	
					5. Add dissolved yeast and mix for 2 minutes on low speed.	
					6. Knead dough on medium speed for 8 minutes, or until dough is smooth and elastic.	
					7. Place dough in warm area (about 90° F) for 45-60 minutes.	
					8. Punch down dough to remove air bubbles.	
					9. Form rolls from dough by pinching off 2 oz pieces and shaping. Place rolls in rows of 5 across and 10 down on sheet pans (18" x 26" x 1") which have been lightly coated with pan release spray. For 50 servings, use 1 pan. For 100 servings, use 2 pans.	
					10. Place in a warm area (about 90° F) until double in size, 30-50 minutes.	
					11. Bake until lightly browned: Conventional oven: 400° F for 18-20 minutes Convection oven: 350° F for 12-14 minutes	
Margarine or butter, melted (optional)	1 Tbsp			2 Tbsp	12. Optional: Brush lightly with melted margarine or butter (approximately 1 Tbsp per pan) while warm.	

Grains/Breads

B-16

Rolls (Yeast)

Grains/Breads	Grains/Breads		B-16
SERVING:	YIELD:	VOLUME:	
1 roll provides 2 servings of grains/breads.	50 Servings: about 6 lb 4 oz (dough)	50 Servings: about 50 rolls	
	100 Servings: about 12 lb 8 oz (dough)	100 Servings: about 100 rolls	
Tested 2004			
<p>Special Tip: To use high-activity (instant) yeast, follow directions below or manufacturer's instructions.</p> <p>For 50 servings, omit step 1. In step 2, add ¼ cup high-activity (instant) yeast. Continue with step 3. In step 4, add 1 qt water (110° F). Omit step 5. In step 6, knead for 10 minutes. Continue with steps 7-12.</p> <p>For 100 servings, omit step 1. In step 2, add 2 ½ oz (½ cup) high-activity (instant) yeast. Continue with step 3. In step 4, add 2 qt water (110° F). Omit step 5. In step 6, knead for 10 minutes. Continue with steps 7-12.</p>	<p>Variations: A. Frankfurter Rolls</p> <p>50 and 100 servings: Follow steps 1-8. In step 9, shape 2 oz pieces of dough to approximately 2 ½" x 6 ½ ". Place rolls in rows of 8 down and 4 across on sheet pans which have been lightly coated with pan release spray. Continue with steps 10-12.</p> <p>B. Hamburger Rolls</p> <p>50 and 100 servings: Follow steps 1-8. In step 9, shape and flatten 2 oz pieces of dough to approximately 4" in diameter. Place rolls in rows of 6 down and 4 across on sheet pans which have been lightly coated with pan release spray. Continue with steps 10-12.</p> <p>C. Wheat Rolls</p> <p>50 servings: Follow step 1. In step 2, use 1 lb 13 oz (1 qt 2 ½ cups) enriched all-purpose or bread flour and 1 lb 13 oz (1 qt 2 ¾ cups) whole wheat flour. Continue with steps 3-12.</p> <p>100 servings: Follow step 1. In step 2, use 3 lb 10 oz (3 qt 1 cup) enriched all-purpose or bread flour and 3 lb 10 oz (3 qt 1 ½ cups) whole wheat flour. Continue with steps 3-12.</p>		

Rolls (Yeast)

Grains/Breads		Grains/Breads		B-16	
Nutrients Per Serving					
Calories	176	Saturated Fat	0.60 g	Iron	1.75 mg
Protein	4.53 g	Cholesterol	0 mg	Calcium	29 mg
Carbohydrate	29.80 g	Vitamin A	44 IU	Sodium	291 mg
Total Fat	4.21 g	Vitamin C	0.1 mg	Dietary Fiber	1.2 g

Quality Score Card for Yeast Breads

Date: _____ Name of Menu Item: _____

Proudly Prepared by: _____

Quality Scored by: _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **N/A** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

QUALITY STANDARD	YES	NO	N/A	COMMENTS
APPEARANCE				
Color of crust is golden brown.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Color is smooth, free from air bubbles.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Slices of bread are uniform in size.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Rolls are uniform in size.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Color of the interior is creamy white (or light brown, depending on the type of flour used).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TEXTURE OR CONSISTENCY				
Crust is tender (French bread or other hard crust breads should have a crisp crust).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Grain is moist.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Rolls are uniform in size.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Grain is fine and even (free from holes).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Bread is fresh, not dried out or stale.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Crumb is elastic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FLAVOR AND SEASONING				
Bread is fresh-tasting with a nut-like flavor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Bread is free from foreign flavors such as rancid fat or sour taste.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SERVICE TEMPERATURE				
No lower than 60 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Culinary Practice Score Card for Yeast Breads

Name(s): _____

Purpose: The purpose of the activity is to practice Preparing Yeast Breads.

Culinary Technique: Identify the culinary technique that you will use. Refer to the previous pages for a description of each technique.

Name of the Recipe: _____

Date for Production: _____

Directions: The manager and school nutrition assistant(s) will select a recipe for yeast bread that includes one of the culinary techniques described in this lesson. Check **YES** or **NO** when each step is completed. (This practice activity may be completed individually or with a partner. The manager will make this assignment at the end of the lesson.)

	YES	NO
Plan food production for just-in-time service.		
Did you plan food production for just-in-time service?	<input type="radio"/>	<input type="radio"/>
Review the Quality Score Card and the recipe.		
Did you review the recipe so you are familiar with the ingredients, equipment, and directions?	<input type="radio"/>	<input type="radio"/>
Did you review the Quality Score Card so you will know how the finished product should look and taste?	<input type="radio"/>	<input type="radio"/>
Organize equipment and ingredients.		
Did you assemble all the equipment needed?	<input type="radio"/>	<input type="radio"/>
Did you assemble all of the ingredients needed?	<input type="radio"/>	<input type="radio"/>
Use the right culinary technique.		
Did you use the culinary technique correctly?	<input type="radio"/>	<input type="radio"/>
Deliver a quality product.		
Did you use the Quality Score Card to evaluate the product?	<input type="radio"/>	<input type="radio"/>
Did you review the product with the manager?	<input type="radio"/>	<input type="radio"/>
Discuss the following questions with the manager before serving.		
How can the appearance of the food be improved?		
How can the flavor or taste of the food be improved?		
How can the texture and tenderness of the food be improved?		
How can the service temperature of the food be improved?		

The manager's signature indicates this practice has been completed satisfactorily. The manager should keep this on file or submit it to the central office to document the completion of the lesson.

Name of Manager: _____ Date Signed: _____



Participant's Workbook

Preparing Quick Breads

Time: 1 hour



National Food Service Management Institute
The University of Mississippi



Important Terms

All-Purpose Flour

White flour milled from hard wheats or a blend of hard and soft wheats. It gives the best results for many kinds of products, including some yeast breads, quick breads, cakes, cookies, pastries, and noodles. It is usually enriched and may be bleached or unbleached. Protein varies from 8–10%.

Conventional Oven

An electric or gas oven arranged either as decks or under a range top.

Convection Oven

An oven that has a fan that constantly circulates heated air across the food. This convection action increases the heat absorption process, shortens required cooking time, and reduces shrinkage of food.

Culinary

Relating to the kitchen or cooking. An example of use is to describe food preparation skills as culinary skills.

Culinary Technique

A step-by-step food preparation method.

Just-In-Time Preparation

Preparing a menu item in small enough amounts so that it will be at its peak of quality when placed on the serving line. This preparation schedule avoids holding any food for a long time. Other terms that mean the same thing are *batch cooking* and *cooking to the line*.

Leavening Agent

An ingredient that makes a product light and porous. Leavening agents include yeast, baking powder, baking soda, eggs, egg whites, air, and steam.

Mise en Place (meez-un-plahss)

A French term used by chefs and other culinary professionals to describe all the different things that have to be done to get ready up to the point of cooking. Translated, it means *put in place*. It includes all the *get ready steps* in food preparation such as using the recipe to assemble the equipment needed and getting ingredients ready to combine.

Nutrients

The substances found in food that nourish the body. There are six classes of nutrients: proteins, carbohydrates, fats, water, minerals, and vitamins.

Self-Rising Flour

Also referred to as phosphated flour, it is a convenience product made by adding salt and a leavening agent to all-purpose flour. It is commonly used in biscuits and other quick breads, but is not recommended for yeast breads. One cup of self-rising flour contains 1 1/2 teaspoons of baking powder and 1/2 teaspoon salt. Self-rising flour can be substituted for all-purpose flour by reducing salt and baking powder according to these proportions.

Mise en Place

Measure ingredients carefully.

Rules for weighing ingredients

- Be sure the pointer is on zero when you begin.
- Place the container for the ingredient on the scale's platform.
- If using a scale with a fixed dial, place the container on the platform; record the weight of the container. Add the ingredients until the total weight equals the required weight, plus the weight of the container.
- If using a scale with an adjustable dial, place the container on the platform and turn the pointer to zero. Add the ingredients until the dial reflects the required weight.
- If using an electronic scale, press the tare button after the container is placed on the platform.

Rules for measuring dry ingredients

- Use standard measuring equipment.
- Use the largest appropriate standard measuring container to save time and to reduce error.
- Exception: To measure flour, do not use a container larger than 1 quart because flour packs easily.
- Spoon ingredient lightly into the measuring container. (If lumpy, sift before measuring.)
- Exception: Pack brown sugar firmly into the measuring container so it will take the shape of the container when emptied.
- Fill the measuring container to overflowing and level off with a straight-edged spatula.
- Avoid shaking or tapping measuring container.

Rules for measuring liquid ingredients

- Use the largest appropriate standard measuring container.
- Place liquid measuring container on a flat surface.
- Pour liquid into the container until it reaches the desired level.
- Read at eye level when using a clear container. If a metal container is used, look inside the container as the liquid is filled to the desired level.

Muffin Tins

Grease muffin tins by spraying with nonstick cooking spray or brushing with softened margarine, butter, or shortening. Paper liners can be used instead of greasing the muffin tins. If muffin pans are not available, use paper soufflé cups placed on a sheet pan for baking school-made muffins.

Reducing Fat in Quick Breads

Fruit or bean purees are often used as fat substitutes in quick breads. The pectin in these foods forms a film around the tiny air bubbles in the batter, similar to what occurs when you cream solid shortenings with sugar, but not as effectively.

Up to half of the solid fat can be replaced with pureed fruits or vegetables in recipes:

- Applesauce
- Apple or pear puree
- Mashed bananas
- Pureed carrots
- Pureed figs
- Pureed prunes
- Pureed pumpkins
- Pureed cooked white beans
- Pureed cooked black beans
- Pureed sweet potatoes

Applesauce is the favored fruit puree used in quick breads because it is readily available, inexpensive, contains more pectin than other fruit purees, and doesn't impart a strong flavor.

A cup of butter or margarine contains 180 grams of fat and about 1,600 calories, while a cup of applesauce has little or no fat and about 100 calories.

Remember to standardize the recipe for use in your foodservice operation.

What Happened to the Quick Bread?

Quick Bread Problem	What Could Have Happened to Cause It?	
Too little volume	<ul style="list-style-type: none"> • Ingredients measured incorrectly • Incorrect proportions of ingredients in recipe • Mixed improperly • Liquid too hot and leavening gases escape • Oven temperature too low • Too large a proportion of acidic ingredients (fruits) • Dough or batter held too long before baking when it contained acidic ingredients • For biscuits, too much flour used when rolling 	
Pale color	• Oven temperature too low	• Overmixed
Rough surface	• Too much flour	• Undermixed
Peaked shape (muffins)	<ul style="list-style-type: none"> • Wrong size pans • Liquid measured incorrectly 	<ul style="list-style-type: none"> • Overmixed • Oven temperature too high
Flat top with only a small peak in center	• Oven temperature too low	
Crust too thick	• Too much sugar	• Oven temperature too low
Texture coarse, tunneled	<ul style="list-style-type: none"> • Recipe did not have correct proportion of ingredients • Inadequate punch down • Overmixed 	
Dry	<ul style="list-style-type: none"> • Too much flour • Oven temperature too low 	<ul style="list-style-type: none"> • Too little liquid • Overbaked
Tough, elastic	• Too little liquid	• Overmixed
Unpleasant flavor	<ul style="list-style-type: none"> • Not enough salt • Too much baking powder or soda • Poor quality fat or flavorings • Soapy or bitter taste due to chemical leaveners not properly mixed in batter 	



Cornbread

Grains/Breads	Grains/Breads	B-09
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Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Enriched all-purpose flour	1 lb	3 ³ / ₄ cups	2 lb	1 qt 3 ¹ / ₂ cups	1. Blend flour, cornmeal or corn grits, sugar, baking powder, and salt in mixer for 1 minute on low speed.
Cornmeal OR Enriched corn grits	1 lb OR 1 lb	3 ³ / ₄ cups OR 2 ³ / ₄ cups	2 lb OR 2 lb	1 qt 3 ¹ / ₂ cups OR 1 qt 1 ¹ / ₂ cups	
Sugar	5 ¹ / ₄ oz	³ / ₄ cup	10 ¹ / ₂ oz	1 ¹ / ₂ cups	
Baking powder		2 Tbsp 2 tsp	2 oz	¹ / ₃ cup	
Salt		1 ¹ / ₄ tsp		2 ¹ / ₂ tsp	
Frozen whole eggs, thawed OR Fresh large eggs (see Special Tip)	5 ¹ / ₄ oz	³ / ₄ cup OR 3 each	10 ¹ / ₂ oz	1 ¹ / ₄ cups OR 6 each	2. Mix eggs, milk, oil, cheese (optional), and chili peppers (optional). Add to dry ingredients and blend for 30 seconds on low speed. Beat until dry ingredients are moistened for 2-3 minutes on medium speed. DO NOT OVERMIX. Batter will be lumpy.
Instant nonfat dry milk, reconstituted		3 ³ / ₄ cups		1 qt 3 ¹ / ₂ cups	
Vegetable oil		¹ / ₂ cup		1 cup	
Reduced fat Cheddar cheese, shredded (optional)	12 oz	3 cups	1 lb 8 oz	1 qt 2 cups	
*Fresh green chili peppers, chopped (optional)	4 oz	³ / ₄ cup 3 Tbsp	8 oz	1 ³ / ₄ cups 2 Tbsp	
3. Pour 4 lb 14 oz (2 qt 2 cups) batter into each half-sheet pan (18" x 13" x 1") which has been lightly coated with pan release spray. For 50 servings, use 1 pan. For 100 servings, use 2 pans.					
4. Bake until lightly browned: Conventional oven: 400° F for 30-35 minutes Convection oven: 350° F for 20-25 minutes					
5. Cut each half-sheet pan 5 x 10 (50 pieces per pan).					

Marketing Guide for Selected Items		
Food as Purchased for	50 Servings	100 Servings
Green chili peppers	5 oz	10 oz

Cornbread

Grains/Breads	Grains/Breads	B-09
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SERVING:	YIELD:	VOLUME:
1 piece provides 1 serving of grains/breads.	50 Servings: 4 lb 14 oz (batter) 1 half-sheet pan	50 Servings: about 2 quarts 2 cups (batter) 50 pieces
	100 Servings: 9 lb 12 oz (batter) 2 half-sheet pans	100 Servings: 1 gallon 1 quart (batter) 100 pieces

Edited 2004

Special Tip:
For 50 servings, use 1 ½ oz (½ cup) dried whole eggs and ½ cup water in place of eggs.

For 100 servings, use 3 oz (1 cup) dried whole eggs and 1 cup water in place of eggs.

Nutrients Per Serving			
Calories	108	Saturated Fat	0.45 g
Protein	2.65 g	Cholesterol	13 mg
Carbohydrate	18.03 g	Vitamin A	51 IU
Total Fat	2.82 g	Vitamin C	0.1 mg
		Iron	0.90 mg
		Calcium	68 mg
		Sodium	151 mg
		Dietary Fiber	1.0 g

Baking Powder Biscuits

Grains/Breads	Grains/Breads	B-04
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Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Enriched all-purpose flour	3 lb	2 qt 3 cups	6 lb	1 gal 1 ½ qt	1. Blend flour, dry milk, baking powder, and salt in mixer for 1 minute at low speed.
Instant nonfat dry milk	3 oz	1 ¼ cups	6 oz	2 ½ cups	
Baking powder	2 ¾ oz	¼ cup 2 ½ Tbsp	5 ½ oz	¾ cup 1 Tbsp	
Salt		1 Tbsp		2 Tbsp	
Shortening	11 ½ oz	1 ¾ cups	1 lb 7 oz	3 ½ cups	
Water, cold		3 ¾ cups		1 qt 3 ½ cups	2. Add shortening and blend into dry ingredients for 2 minutes at low speed. Mixture will be crumbly.
					3. Add water and mix for approximately 1 minute on low speed to form soft dough. Scrape bowl as necessary during mixing.
					4. Turn out onto lightly floured surface. For 50 servings, knead ball of dough lightly for 1 minute. For 100 servings, divide dough in half and knead each half lightly for 1 minute.
					5. Roll or pat out each ball of dough to ½" thickness. Cut with floured 2 ½" biscuit cutter and place on sheet pan (18" x 26" x 1") in rows of 5 across and 10 down. For 50 servings, use 1 pan. For 100 servings, use 2 pans.
					6. Bake until lightly browned: Conventional oven: 450° F for 12-14 minutes Convection oven: 400° F for 8-10 minutes

SERVING:	YIELD:	VOLUME:
1 biscuit provides 1 ½ servings of grains/breads.	50 Servings: 1 sheet pan	50 Servings: 50 2 ½ inch biscuits
	100 Servings: 2 sheet pans	100 Servings: 100 2 ½ inch biscuits

Edited 2004

Baking Powder Biscuits

Grains/Breads	Grains/Breads	B-04
<p>Variations:</p> <p>A. Baking Powder Biscuits (Using Master Mix B-01) For 50 servings, omit steps 1 and 2. Use 3 lb 12 oz (3 qt) Master Mix. Continue with steps 3-6.</p> <p>For 100 servings, omit steps 1 and 2. Use 7 lb 8 oz (6 qt) Master Mix. Continue with steps 3-6.</p> <p>B. Cheese Biscuits For 50 servings, follow steps 1 and 2. In step 3, add 12 oz (3 ½ cups) shredded reduced fat Cheddar cheese to soft dough. Mix lightly to distribute cheese. Continue with steps 4-6.</p> <p>For 100 servings, follow steps 1 and 2. In step 3, add 1 lb 8 oz (1 qt 3 cups) shredded reduced fat Cheddar cheese to soft dough. Mix lightly to distribute cheese. Continue with steps 4-6.</p> <p>C. Drop Biscuits For 50 servings, follow steps 1 and 2. In step 3, use 1 qt ¾ cup cold water. Omit step 4. In step 5, portion with level No. 16 scoop (¼ cup) onto 1 sheet pan (18" x 26" x 1") in rows of 10 down and 5 across. Continue with step 6.</p> <p>For 100 servings, follow steps 1 and 2. In step 3, use 2 qt 1 ½ cups cold water. Omit step 4. In step 5, portion with level No. 16 scoop (¼ cup) onto 2 sheet pans (18" x 26" x 1") in rows of 5 across and 10 down. Continue with step 6.</p> <p>D. Wheat Biscuits For 50 servings, in step 1, use 2 lb 4 oz (2 qt) enriched all-purpose flour and 12 oz (2 ¾ cups) whole wheat flour. Continue with steps 2-6.</p> <p>For 100 servings, in step 1, use 4 lb 8 oz (4 qt) enriched all-purpose flour and 1 lb 8 oz (1 qt 1 ½ cups) whole wheat flour. Continue with steps 2-6.</p>		

Baking Powder Biscuits

Grains/Breads

Grains/Breads

B-04

Nutrients Per Serving			
Calories	164	Saturated Fat	1.68 g
Protein	3.41 g	Cholesterol	0 mg
Carbohydrate	22.09 g	Vitamin A	40 IU
Total Fat	6.80 g	Vitamin C	0.1 mg
		Iron	1.44 mg
		Calcium	117 mg
		Sodium	315 mg
		Dietary Fiber	0.7 g



Quality Score Card for Quick Breads

Date: _____ Name of Menu Item: _____

Proudly Prepared by: _____

Quality Scored by: _____

Directions: When the food is ready to serve, use this Quality Score Card to evaluate the quality. Mark **YES** when the food meets the standard and **NO** when it does not. Mark **N/A** (Not Applicable) when a specific quality standard does not apply to the food being evaluated. Use the **COMMENTS** section to explain why a food does not meet a standard.

Remember, if a food does not meet the quality standards, it should not be placed on the serving line.

QUALITY STANDARD	YES	NO	N/A	COMMENTS
APPEARANCE				
Color is evenly light to golden brown.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Slides are even and straight.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Muffins have slightly rounded tops with no cracks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Muffins have rough, pebbled tops.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Biscuits have level tops with no bumps.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
TEXTURE OR CONSISTENCY				
Crust is tender.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Crumb is moist but not doughy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Texture is even without large holes or tunnels.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Bread breaks easily without crumbling.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
FLAVOR AND SEASONING				
Bread is fresh-tasting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Bread is free from foreign flavors such as rancid fat or sour taste.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Flavor is light and pleasing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
SERVICE TEMPERATURE				
60 °F-120 °F	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	



Culinary Practice Score Card for Quick Breads

Name(s): _____

Purpose: The purpose of the activity is to practice Preparing Quick Breads.

Culinary Technique: Identify the culinary technique that you will use. Refer to the previous pages for a description of each technique.

Name of the Recipe: _____

Date for Production: _____

Directions: The manager and school nutrition assistant(s) will select a recipe for a quick bread that includes one of the culinary techniques described in this lesson. Check **YES** or **NO** when each step is completed. (This practice activity may be completed individually or with a partner. The manager will make this assignment at the end of the lesson.)

	YES	NO
Plan food production for just-in-time service.		
Did you plan food production for just-in-time service?	<input type="radio"/>	<input type="radio"/>
Review the Quality Score Card and the recipe.		
Did you review the recipe so you are familiar with the ingredients, equipment, and directions?	<input type="radio"/>	<input type="radio"/>
Did you review the Quality Score Card so you will know how the finished product should look and taste?	<input type="radio"/>	<input type="radio"/>
Organize equipment and ingredients.		
Did you assemble all the equipment needed?	<input type="radio"/>	<input type="radio"/>
Did you assemble all of the ingredients needed?	<input type="radio"/>	<input type="radio"/>
Use the right culinary technique.		
Did you use the culinary technique correctly?	<input type="radio"/>	<input type="radio"/>
Deliver a quality product.		
Did you use the Quality Score Card to evaluate the product?	<input type="radio"/>	<input type="radio"/>
Did you review the product with the manager?	<input type="radio"/>	<input type="radio"/>
Discuss the following questions with the manager before serving.		
How can the appearance of the food be improved?		
How can the flavor or taste of the food be improved?		
How can the texture and tenderness of the food be improved?		
How can the service temperature of the food be improved?		

The manager's signature indicates this practice has been completed satisfactorily. The manager should keep this on file or submit it to the central office to document the completion of the lesson.

Name of Manager: _____ Date Signed: _____





Participant's Workbook

Preparing Seasonings

Time: 1 hour



National Food Service Management Institute
The University of Mississippi

Important Terms

Bouquet Garni (Bo-Ka GAHR-Nee)

A selection of herbs that are wrapped with kitchen twine and put in the food to season it during cooking. The bouquet garni is removed when the desired level of seasoning has been achieved. The twine is used to remove the herbs.

Culinary

Relating to the kitchen or cooking. An example of use is to describe food preparation skills as culinary skills.

Culinary Technique

A step-by-step food preparation method.

Sachet D'Epices (Sa-SHA Day-Pees)

A selection of herbs and spices tied in a cloth bag usually made of cheese cloth. The Sachet D'Epices is used for flavoring soups, stews, and sauces and is removed when cooking is complete.

Caramelize

The heating of a seasoning food until a golden to brown color is developed and the characteristic flavor is developed.

Marinade

A mixture of oil, acid foods, and seasonings used to flavor meats and vegetables.

Mise en Place (meez-un-plahss)

A French term used by chefs and other culinary professionals to describe all the different things that have to be done to get ready up to the point of cooking. Translated, it means *put in place*. It includes all the *get ready steps* in food preparation such as using the recipe to assemble the equipment needed and getting ingredients ready to combine.

Mirepoix (MIHR-pwah)

A mixture of chopped vegetables used in flavoring soup or roasts; generally includes 50% onions, 25% carrots, and 25% celery.

Pungent (PUN-jent)

A sharp taste, biting.

Stock

A flavorful liquid prepared by simmering meat, poultry, fish, and/or vegetables in water until the flavor is extracted.

Spices

Spices are prepared from the roots, buds, flowers, fruits, bark, or seeds of plants. The chart shows some of the basic information about spices.

Name	Form	Taste	Uses
Allspice	Whole berries, ground	The aroma suggests a blend of cloves, cinnamon, and nutmeg; sweet flavor	Fruit cakes, pies, relishes, preserves, sweet yellow vegetables, such as sweet potatoes and tomatoes
Cardamom seed	Whole, ground	Mild, pleasant, sweet ginger-like flavor	Baked goods, apple and pumpkin pies; an important ingredient in curry
Cinnamon	Whole sticks, ground	Warm, spicy sweet flavor	Cakes, buns, breads, cookies, and pies
Cloves	Whole, ground	Hot, spicy, sweet penetrating flavor	Whole cloves for baking hams and other pork, pickling fruits, and in stews and meat gravies; ground cloves in baked goods and desserts and to enhance the flavor of sweet vegetables, such as beets, sweet potatoes, and winter squash
Ginger	Fresh, whole, cracked, ground	Aromatic, sweet, spicy, penetrating flavor	Baked goods; rubbed on meat, poultry, and fish; in stir-fry dishes
Mace	Ground	Strong nutmeg flavor	The thin red network surrounding the nutmeg fruit; used in baked goods where a color lighter than nutmeg is desirable
Mustard	Whole seeds, powdered, prepared	Sharp, hot, very pungent	Meats, poultry, fish, sauces, salad dressings, cheese and egg dishes; whole seeds in pickling and boiled beets, cabbage, or sauerkraut
Nutmeg	Whole, ground	Spicy, pleasant flavor	Seed of the nutmeg fruit for baked goods, puddings, sauces, vegetables; in spice blends for processed meats; mixed with butter for corn on cob, spinach, and candied sweet potatoes
Paprika	Ground	Sweet, mild, or pungent flavor	A garnish spice, gives an appealing appearance to a wide variety of dishes; used in the production of processed meats such as sausage, salad dressings, and other prepared foods
Peppercorns: black, white, red, and pink	Whole, ground, coarse ground	Hot, biting, very pungent	Many uses in a wide variety of foods; white pepper ideal in light colored foods where dark specks might not be attractive
Red pepper (Cayenne)	Ground, crushed	Hot, pungent flavor	Meats and sauces

Herbs

Herbs come from the leaf or soft portions of plants.

Name	Form	Taste	Uses
Anise seed	Seeds	Sweet licorice flavor	Cookies, cakes, fruit mixtures, chicken
Basil	Fresh, dried chopped leaves	Mint licorice-like flavor	Pizza, spaghetti sauce, tomato dishes, vegetable soups, meat pies, peas, zucchini, green beans
Bay leaves	Whole, ground	Flavor distinctly different from celery	Fish, soups, tomato juice, potato salad dressing
Caraway seed	Whole	Sharp and pungent	Baked goods such as rye bread, cheeses, sauerkraut dishes, soups, meats, stews
Celery seed	Whole, ground	Flavor distinctly different from celery	Fish, soups, tomato juice, potato salad different from celery
Chives	Fresh, freeze dried	In the onion family; delicate flavor	Baked potato topping, all cooked green vegetables, green salads, cream sauces, cheese dishes
Coriander seed	Whole, ground	Pleasant, lemon orange flavor	Ingredient in curry, ground form in pastries, buns, cookies, and cakes; in processed foods such as frankfurters
Cilantro	Fresh, dried	Sweet aroma, mildly peppery	Ingredient in Mexican foods
Cumin	Whole seeds, ground	Warm, distinctive salty-sweet resembles caraway	Ingredient in chili powder and curry powder; German cooks add to pork and sauerkraut and Dutch add to cheese
Dill	Fresh, dried, seeds	Aromatic, like caraway but milder and sweeter	Dill pickles; seeds in meats, sauces, salads, coleslaw, potato salad, and cooked macaroni; dill weed in salads, sandwiches, and uncooked mixtures
Fennel seed	Whole	Flavor similar to anise, pleasant sweet licorice	Breads, rolls, apple pies, seafood, pork, and poultry dishes; provides the distinctive flavor to Italian sausage
Marjoram	Fresh, dried whole or ground	Faintly sage like, slight mint aftertaste, delicate	Vegetables, one of the ingredients in poultry and Italian seasoning; processed foods such as bologna
Mint	Fresh leaves or dried flakes	Strong and sweet with a cool aftertaste	Peppermint is the most common variety; popular flavor for candies and frozen desserts; many fruits, peas, and carrots
Oregano	Fresh, dried leaves, ground	More pungent than marjoram, reminiscent of thyme	Pizza, other meat dishes, cheese and egg dishes; vegetables such as tomatoes, zucchini, or green beans; an ingredient in chili powder

Herbs, continued

Name	Form	Taste	Uses
Parsley	Fresh, dried flakes	Sweet, mildly spicy, refreshing	A wide variety of cooked foods, salad dressings, and sandwich spreads
Poppy seed	Whole, crushed	Nut flavor	Whole as a topping for rolls, breads, cakes, cookie, and pastries; crushed in fillings for pastries; over noodles and pasta or rice; in vegetables such as green beans
Rosemary	Fresh, whole leaves	Refreshing, pine, resinous, pungen	Chicken dishes and vegetables such as eggplant, turnips, cauliflower, green beans, beets, and summer squash; enhances the flavor of citrus fruits
Sage	Whole, rubbed, ground	Pungent, warm, groundastringent	Meats, poultry stuffing, salad dressings; cheese; a main ingredient in poultry seasoning blend; an ingredient in a wide variety of commercial meat products
Savory	Fresh, dried whole or ground	Warm, aromatic, resinous, delicate sage flavor	Beans, meats, soups, salads, sauces; an ingredient in poultry seasoning blend
Sesame seed	Whole	Toasted nut flavor	Rolls, bread, and buns
Tarragon	Fresh, dried leaves	An aroma with a hint of anise; licorice flavor, pleasant, slightly bitter	Vinegar, salad dressings, chicken, tartar sauce, and egg salad
Thyme	Fresh, dried, whole or ground	Strong, pleasant, pungent clove flavor	New England clam chowder, Creole seafood dishes, midwest poultry stuffing; blended with butter is good over green beans, eggplant, and tomatoes
Turmeric (Tumeric)	Dried, powder	Aromatic, warm, mild	Prepared mustards; a main ingredient in curry powder; chicken and seafood dishes, rice, creamed or mashed potatoes, macaroni; salad dressing for a seafood salad; in melted butter for corn on the cob

Common Blends of Herbs and Spices

Name	Ingredient	How It Is Used
Apple pie spice	Cinnamon, cloves, nutmeg, mace, allspice, ginger	Baked pies, cakes, pastries
Barbeque spice	Cumin, garlic, cloves, paprika, and other ingredients: chili pepper, salt, sugar	Barbeque sauce, salad dressing, meat casseroles, potatoes
Chili powder	Cumin, garlic, oregano, cloves, allspice, powdered onion, and other ingredients: chili pepper, salt	Chili con carne, gravy, meat stews
Curry powder	Ginger, tumeric, cloves, cinnamon, cumin, black and red pepper, fenugreek seed (a spice specific to this blend)	Indian curry dishes, curry sauces, French dressing, scalloped tomatoes, fish chowders, split pea soup
Poultry seasoning	Sage, thyme, marjoram, savory, sometimes rosemary	Poultry and other stuffing, meat loaf; biscuits served with poultry
Pumpkin pie spice	Cinnamon, nutmeg, cloves, ginger	Pumpkin pie, spice cookies and cakes, gingerbread



Honey Dressing

Salads and Salad Dressings E-20

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Lowfat plain yogurt	1 lb 12 oz	3 ½ cups	3 lb 8 oz	1 qt 3 cups	1. Combine all ingredients in a mixing bowl. Using a paddle attachment, mix for 3-5 minutes on low speed. 2. For best results, chill at least 12 hours prior to serving. Refrigerate until service.
Honey	1 lb	1 ⅓ cups	2 lb	2 ⅔ cups	
Paprika		1 tsp		2 tsp	
Orange juice		½ cup		1 cup	
Prepared yellow mustard	2 oz	¼ cup	4 oz	½ cup	

SERVING:

2 Tbsp (1 oz ladle).

YIELD:

50 Servings: about 3 lb 2 oz

VOLUME:

50 Servings: about 1 quart 2 ¼ cups

100 Servings: about 6 lb 4 oz

100 Servings: about 3 quarts ½ cup

Tested 2004

Special Tip:

This makes a tasty dipping sauce for chicken or fish nuggets.

Honey Dressing

E-20

Salads and Salad Dressings

Nutrients Per Serving			
Calories	40	Saturated Fat	0.16 g
Protein	0.93 g	Cholesterol	1 mg
Carbohydrate	8.93 g	Vitamin A	40 IU
Total Fat	0.30 g	Vitamin C	1.1 mg
		Iron	0.09 mg
		Calcium	31 mg
		Sodium	25 mg
		Dietary Fiber	0.0 g

Ranch Dressing

Salads and Salad Dressings

E-19

Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Buttermilk		3 ¹ / ₄ cups		1 qt 2 ¹ / ₂ cups	1. Combine buttermilk and lemon juice in a mixing bowl. Allow mixture to rest for 10 minutes.
Lemon juice		1 Tbsp 1 tsp		2 Tbsp 2 tsp	
Lowfat plain yogurt	10 oz	1 ¹ / ₄ cups	1 lb 4 oz	2 ¹ / ₂ cups	2. Using a paddle attachment, blend in the yogurt and sour cream. Let mixture rest for 5 more minutes.
Light sour cream	4 oz	¹ / ₂ cup	8 oz	1 cup	
Reduced calorie salad dressing	13 oz	1 ² / ₃ cups	1 lb 10 oz	3 ¹ / ₃ cups	3. Add rest of ingredients to mixture in mixing bowl. Mix for 2-3 minutes on low speed until blended.
OR					
Lowfat mayonnaise	13 oz	1 ² / ₃ cups	1 lb 10 oz	3 ¹ / ₃ cups	
Onion powder		2 Tbsp		¹ / ₄ cup	
Granulated garlic		2 Tbsp		¹ / ₄ cup	
Ground black or white pepper		¹ / ₂ tsp		1 tsp	
Dried chives		1 tsp		2 tsp	4. Chill at least 12 hours before serving to allow to thicken. Refrigerate until service.
Dried parsley		1 Tbsp		2 Tbsp	
Salt		2 tsp		1 Tbsp 1 tsp	

SERVING:

2 Tbsp (1 oz ladle).

YIELD:

50 Servings: about 3 lb 5 oz

VOLUME:

50 Servings: about 1 quart 2 ¹/₄ cups

100 Servings: about 6 lb 10 oz

100 Servings: about 3 quarts ¹/₂ cup

Tested 2004

Special Tip:

Add an additional 8 oz of reduced calorie salad dressing or lowfat mayonnaise per 50 servings for an excellent vegetable dip.

Ranch Dressing

E-19

Salads and Salad Dressings

Nutrients Per Serving			
Calories	35	Saturated Fat	0.52 g
Protein	1.05 g	Cholesterol	5 mg
Carbohydrate	3.50 g	Vitamin A	26 IU
Total Fat	1.88 g	Vitamin C	0.5 mg
		Iron	0.10 mg
		Calcium	35 mg
		Sodium	181 mg
		Dietary Fiber	0.1 g

Honey-Lemon Chicken

Meat/Meat Alternate	Main Dishes	D-44
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Ingredients	50 Servings		100 Servings		Directions
	Weight	Measure	Weight	Measure	
Water		1 qt		2 qt	1. Combine water, honey, lemon juice, salt, and pepper in a bowl. Set aside for step 5.
Honey	1 lb 7 oz	2 cups	2 lb 14 oz	1 qt	
Lemon juice		1 cup		2 cups	
Salt		1 Tbsp 1 tsp		2 Tbsp 2 tsp	
Ground black or white pepper		2 tsp		1 Tbsp 1 tsp	
Raw chicken thighs, with bone with skin (approximately 4 oz each)	14 lb 12 oz	50 each	29 lb 8 oz	100 each	2. Remove skin from thighs. Discard. Place 25 chicken thighs in each steamtable pan (12" x 20" x 2 ½"). For 50 servings, use 2 pans. For 100 servings, use 4 pans.
3. Bake: Conventional oven: 400° F for 20 minutes Convection oven: 375° F for 20 minutes					
4. Drain fat and discard.					
5. Pour 3 ½ cups of honey-lemon mixture over each pan of chicken thighs.					
6. Bake until golden brown: Conventional oven: 350° F for 15 minutes Convection oven: 325° F for 15 minutes CCP: Heat to 165° F or higher for at least 15 seconds.					
7. For glazed appearance, baste after 10 minutes. CCP: Hold for hot service at 135° F or higher.					

SERVING:	YIELD:	VOLUME:
1 piece provides 2 oz equivalent meat/meat alternate.	50 Servings: about 9 lb 3 oz	50 Servings: 2 steamtable pans
	100 Servings: about 18 lb 6 oz	100 Servings: 4 steamtable pans

Edited 2004

Honey-Lemon Chicken

Meat/Meat Alternate

Main Dishes

D-44

Special Tips:

- 1) To remove skins easily, use a paper towel to grasp skin.
- 2) A honey-lemon sauce can be made from the baked pan liquids. For each 50 servings, dissolve 1 cup cornstarch in ½ cup cold water. Drain liquid from cooked chicken, remove fat, and strain. Heat 1 qt of honey-lemon sauce until it simmers, 180° F. Add cornstarch-water mixture and simmer until thickened. Pour over chicken before serving. This can be used as a sauce for vegetables or rice.
- 3) The unbaked honey-lemon sauce may also be used as a marinade. Pour the sauce over the chicken thighs and refrigerate overnight before baking.

Nutrients Per Serving			
Calories	124	Saturated Fat	1.74 g
Protein	14.93 g	Cholesterol	55 mg
Carbohydrate	1.05 g	Vitamin A	38 IU
Total Fat	6.26 g	Vitamin C	0.2 mg
		Iron	0.78 mg
		Calcium	8 mg
		Sodium	236 mg
		Dietary Fiber	0.0 g

Italian Seasoning Mix

Sauces, Gravies, and Seasoning Mixes G-01

Ingredients	1 Quart		1 Gallon		Directions
	Weight	Measure	Weight	Measure	
Dried basil		1 ¼ cups 2 Tbsp	8 ½ oz	1 qt 1 ½ cups	1. Combine all ingredients.
Dried oregano		1 ¼ cups 2 Tbsp	8 oz	1 qt 1 ½ cups	
Dried marjoram		1 cup	4 oz	1 qt	
Dried thyme		¼ cup		1 cup	
					2. Store in airtight container. Before using, stir or shake all ingredients well. (Ingredients may settle during storage.)

Nutrients Per Serving *					
Calories	14	Saturated Fat	0.07 g	Iron	3.00 mg
Protein	0.63 g	Cholesterol	0 mg	Calcium	97 mg
Carbohydrate	3.21 g	Vitamin A	395 IU	Sodium	1 mg
Total Fat	0.37 g	Vitamin C	2.8 mg	Dietary Fiber	2.1 g
* Nutrients are based upon 2 Tbsp of mix.					